

1-1-1953

## The Agrarian Vol. 12 No. 1

Clemson University

Follow this and additional works at: [https://tigerprints.clemson.edu/spec\\_agrarian](https://tigerprints.clemson.edu/spec_agrarian)

Materials in this collection may be protected by copyright law (Title 17, U.S. code). Use of these materials beyond the exceptions provided for in the Fair Use and Educational Use clauses of the U.S. Copyright Law may violate federal law.

For additional rights information, please contact Kirstin O'Keefe (kokeefe [at] clemson [dot] edu)

For additional information about the collections, please contact the Special Collections and Archives by phone at 864.656.3031 or via email at cuscl [at] clemson [dot] edu

---

### Recommended Citation

University, Clemson, "The Agrarian Vol. 12 No. 1" (1953). *Agrarian*. 31.  
[https://tigerprints.clemson.edu/spec\\_agrarian/31](https://tigerprints.clemson.edu/spec_agrarian/31)

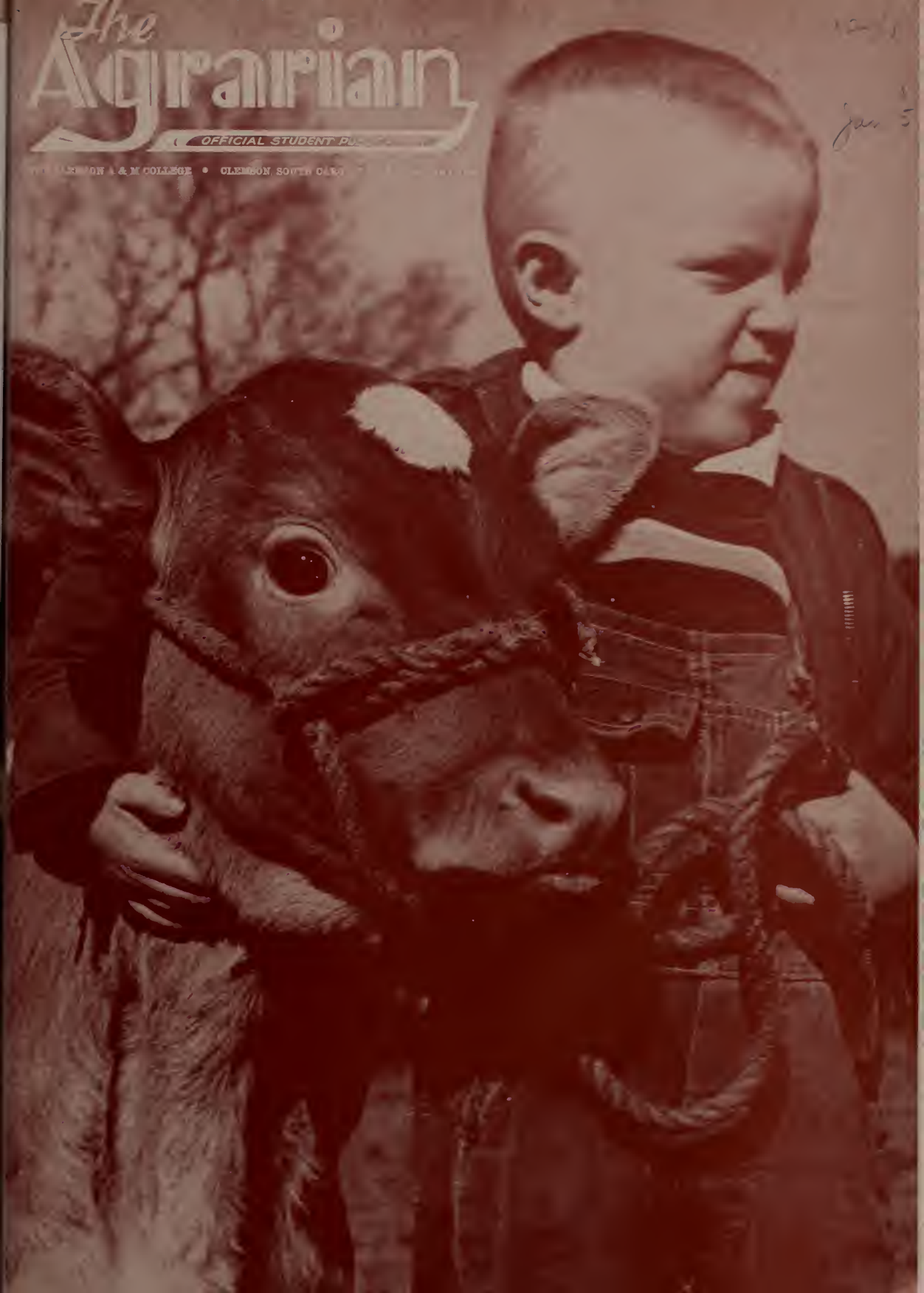
This Book is brought to you for free and open access by the Agriculture, Forestry and Life Sciences, College of at TigerPrints. It has been accepted for inclusion in Agrarian by an authorized administrator of TigerPrints. For more information, please contact [kokeefe@clemson.edu](mailto:kokeefe@clemson.edu).

# The Agrarian

OFFICIAL STUDENT PUBLICATION

CLEMSON UNIVERSITY • CLEMSON, SOUTH CAROLINA

12-1  
Jan 5



# SERVING THE FARMERS IN NORTH AND SOUTH CAROLINA SINCE 1906

200 LBS.  
**PLANTERS  
SPECIAL MIXTURE  
FERTILIZER**  
MANUFACTURED BY  
**PLANTERS FERTILIZER  
AND  
PHOSPHATE CO.**  
CHARLESTON, S. C.  
GUARANTEED ANALYSIS  
NITROGEN ..... 4.00%  
AVAIL. PHOS. ACID ..... 10.00%  
POTASH SOL. IN WATER ..... 5.00%



VIEW OF THE  
**Planters Fertilizer & Phosphate Co.**

We maintain the highest standard of excellence in the manufacture of Planters Fertilizers. Our trade-mark on every bag is a guarantee that you are getting the Best Fertilizer Made. To produce increased yields, fertilizer must contain:

**NITROGEN • PHOSPHORIC ACID • POTASH**

In such proportions that it furnishes available and soluble supply of plant food at all times. Thousands of Farmers all thru the South testify to the great results secured from the use of these well known brands:

"SPECIAL MIXTURE FERTILIZER".....	4-10-6
"SPECIAL MIXTURE FERTILIZER".....	3-9-9
"PEE DEE TOBACCO FERTILIZER".....	3-9-6
"SPECIAL TRUCK FERTILIZER".....	5-10-5

They will produce larger crops, enrich the soil and make it more productive for future crops. Ask our agent or write us direct for information about the best fertilizer for your land.

**Planters Fertilizer & Phosphate Co.**  
CHARLESTON, S. C.      CHARLOTTE, N. C.

200 LBS.  
**PLANTERS  
PEE DEE TOBACCO  
FERTILIZER**  
MANUFACTURED BY  
**PLANTERS FERTILIZER  
AND  
PHOSPHATE CO.**  
CHARLESTON, S. C.  
GUARANTEED ANALYSIS  
NITROGEN ..... 3.00%  
AVAIL. PHOS. ACID ..... 9.00%  
POTASH SOL. IN WATER ..... 5.00%

200 LBS.  
**PLANTERS  
SPECIAL TRUCK  
FERTILIZER**  
MANUFACTURED BY  
**PLANTERS FERTILIZER  
AND  
PHOSPHATE CO.**  
CHARLESTON, S. C.  
GUARANTEED ANALYSIS  
NITROGEN ..... 5.00%  
AVAIL. PHOS. ACID ..... 10.00%  
POTASH SOL. IN WATER ..... 5.00%

200 LBS.  
**PLANTERS  
SPECIAL MIXTURE  
FERTILIZER**  
MANUFACTURED BY  
**PLANTERS FERTILIZER  
AND  
PHOSPHATE CO.**  
CHARLESTON, S. C.  
GUARANTEED ANALYSIS  
NITROGEN ..... 3.00%  
AVAIL. PHOS. ACID ..... 9.00%  
POTASH SOL. IN WATER ..... 5.00%

200 LBS.  
**PLANTERS  
SPECIAL MIXTURE  
FERTILIZER**  
MANUFACTURED BY  
**PLANTERS FERTILIZER  
AND  
PHOSPHATE CO.**  
CHARLESTON, S. C.  
GUARANTEED ANALYSIS  
NITROGEN ..... 3.00%  
AVAIL. PHOS. ACID ..... 9.00%  
POTASH SOL. IN WATER ..... 5.00%

## Planters Fertilizer & Phosphate Company

Charleston, S. C.

Charlotte, N. C.



# THE AGRARIAN

Volume 12      The Clemson Agricultural College      Number 1

<b>William F. Stewart</b> Co-Editor	<b>Joe W. O'Cain</b> Assoc. Editor	<b>Ronald M. North</b> Co-Editor
<b>Peter L. McCall</b> Advertising Mgr.	<b>James P. Flavin</b> Business Mgr.	<b>W. Joe Cunningham</b> Circulation Mgr.
Jerry Hammett ..... Feature Editor	Vance A. Loy ..... News Editor	
Harlon E. Joye Departmental Editor	Jimmy E. Young Asst. News Editor	
Baxter M. Hood Asst. Feature Editor	Richard C. Hall Rudolph Kemmerlin Asst. Departmental Editors	
Photography ..... Jack Trimmier Ramsey Hawkins		
Jackie Sanders Asst. Bus. Mgr.	Edwin Nolley Asst. Cir. Mgr.	William E. Byrd Asst. Adv. Mgr.

## Departmental Writers—

Cecil G. Walters, John B. Stanley, Howard N. Rawl, Harry D. Vildibill, W. E. Shelley, Donald B. Dunlap, Pat Fulmer, W. R. Garren, P. D. Dukes

## Advertising Staff—

J. W. Shealy, Jim Wilson, Robert E. Poston, John Turner, A. D. Owens

## Circulation Staff—

Jack A. Salters, Lock McKinnon, E. L. Phillips, W. R. Garren, D. F. Holland

## Advisors

O. E. Goodale  
T. L. Senn

THE AGRARIAN—published in November, January, March and May by the undergraduate students in the School of Agriculture and the Department of Vocational Agricultural Education of the School of Education. Opinions expressed in this magazine do not necessarily reflect the policy of the School of Agriculture or Clemson College.

Advertising rates: one-fourth page, \$15.00; one-half page, \$28.00; one page \$50.00.

All correspondence should be addressed to The Agrarian, Clemson College, Clemson, S. C.

No article may be reprinted without permission. Subscription free on request.

## IN THIS ISSUE

Guest Editorial .....	Page 3
June Bugs in January .....	Page 5
The Agrarian Presents .....	Page 6
We Salute .....	Page 7
Yardsticks of Chicken as An Egg Factory .....	Page 8
Winter Care of Livestock .....	Page 10
Down to Earth .....	Page 11
Horticulture A Great Science .....	Page 12
Soil Conditioners .....	Page 13
Club News .....	Page 14
Pre-Forestry at Clemson .....	Page 18
Guilty or Not Guilty .....	Page 22
News .....	Page 24
Gardening Tips .....	Page 30

## Editorial

By JOE O'CAIN  
Associate Editor

\* \*

## GOD GIVES MAN FOREST BEAUTIFUL . . .

Genesis 2:8-9

"And the Lord God planted a garden eastward in Eden; and there he put the man whom he had formed. And out of the ground made the Lord God to grow every tree that is pleasant to the sight, and good for food; the tree of life also in the midst of the garden, and the tree of knowledge of good and evil."

## AND GIVES HOME TO CREATURES OF THE WILD

Ezekiel 31:6

"All the fowls of heaven made their nests in his boughs, and under his branches did all beasts of the field bring forth their young . . ."

Psalms 104:12

"By them shall the fowls of the heaven have their habitation, which sing among the branches."

## COVER

The cover this month exemplifies the ever-new and fresh love of a boy for a special pet, and on the farm most boy's best animal friend is the calf. The boy is three year old Mish Barnett of Clemson. Photo by Jack Trimmier.

Photos in this issue courtesy the Extension Service and Ramsey Hawkins.

Your Trade Mark  
**For Quality Hybrid Seed  
 Corn**



Also  
 Wholesale Producers And Distributors of Cotton  
 Seed, Wheat, Oats, Soybeans, Tobacco Seed, Les-  
 pedeza and Crotalaria.

**McNAIR'S**  
**Yield-Tested Seed Co.**  
 Laurinburg, North Carolina

See us for your Household Needs  
**FURNITURE, APPLIANCES, CARPET,**  
 Etc.

*Everything  
 For Farm & Home*

Buick, Ford Automobiles  
 International Trucks, Sales-Service

**DENMARK**  
**IMPLEMENT CO., INC.**

—Phone 3963—  
 Denmark, S. C.

*There's Pay Dirt  
 in  
 Aromatic Tobacco*

Many Farmers In The Piedmont Section of S. C.,  
 N. C., Ga., Tenn., and Va. Have Found "PAY DIRT"  
 In The Production Of Aromatic Tobacco For Which  
 Southeastern Affords A Ready Market.

**SOUTHEASTERN**  
**Aromatic Tobacco Co.**

1628 East River Ext.  
 Anderson, South Carolina

CLEMSON MEN ARE  
 ALWAYS WELCOME

At

**SEIGLER'S**  
**STEAK HOUSE**

A Good Place To Eat

Walhalla, S. C.

## GUEST EDITORIAL

# HATS OFF!

B. E. GOODALE

The first issue of THE AGRARIAN was published in December 1938. It was the first magazine to be published by Clemson students to serve a particular school and disseminate information to those interested in Agriculture. Student leaders from the school of Agriculture and the Department of Vocational Agricultural Education have been responsible for THE AGRARIAN over the years. The teamwork of these young men has not been applauded like other team play better known to sports fans. Only one who has taken active part in the creation of an issue of a magazine can appreciate the time and work involved. Students who have made THE AGRARIAN a true organ of service to thousands of agriculturists have had but one reward, the satisfaction of a job well done.

The business staff of THE AGRARIAN has extra responsibilities because the only income is from advertisements. The many tens of thousands of AGRARIANS mailed free to promote better agricultural practices have provided a service made possible by advertisers, but tribute should be paid

to students who have labored so diligently in selling the advertising space.

It is good for students to work together in creative effort. It is good for the faculty to assist students in any effort which will develop a spirit of cooperation. AGRARIAN staffs have helped build Clemson's School of Agriculture. The AGRARIANS have been strong links in a chain connecting the agricultural faculty, students and alumni, holding them together with common interests.

To the new staff, it would be well to say, "Hats off to the Past, and Coats off to the Future!" New departments, new services, new ideas should be promoted. Too few people in South Carolina are well informed about Clemson's School of Agriculture and Department of Vocational Agricultural Education. You are challenged to "tell the world" about Clemson. THE AGRARIAN can be an organ of publicity so full of good reporting and editing about Clemson's facilities and services that we can point with pride to our part in making Clemson bigger and better in all ways.



# DEDICATION

The Agrarian staff wishes to take this opportunity to show its appreciation to all of the persons who worked so earnestly and dilligently in helping to reorganize and put The Agrarian back on its feet. We only hope that we can hold down our end of the line as well as you did in helping us get this first issue into print.

It is to these faithful people that we dedicate this issue of The New Agrarian:

Dr. R. F. POOLE  
DEAN H. P. COOPER  
MR. HAMILTON HILL  
MR. K. R. HELTON  
PROF. B. E. GOODALE  
PROF. T. L. SENN  
PROF. W. N. McADAMS  
PROF. B. M. RITTER  
MRS. JANE STEELE

# June Bugs in January

By DON DUNLAP  
Horticulture '54

Remember the fun we used to have in the summer months tying strings to June Bugs' legs—then they would fly round and round. Entomologists now report that these playful insects are destructive and should be of more concern in January than in June. However these Agricultural leaders are having a certain measure of success and experience in the control of these insects.

Maybe you have forgotten the exact appearance of the June Bug, but a brief description might picture the insect in your mind. It is a large, somewhat flattened green beetle, with the margin of the body bronze to yellow, nearly one inch long and half as broad. It feeds on the foliage of the peach and also on the peach fruit just before ripening. The adult also feeds on the foliage of other plants and trees, sometimes attacking ears of corn, and fruits and vegetables of the garden. The larvae do considerable damage to the roots of grasses in addition to attacking the roots of vegetables and ornamental plants. Probably tomato and tobacco plant growers and pasture owners have been the most interested in the control of the insect recently.

Before the insect becomes an adult, it goes through a stage called the grub stage. During the winter months the grubs burrow deep into the soil; in the spring they come closer to the surface of the soil and continue development by feeding mainly on decaying vegetable matter. During heavy rains they tend to come to the surface of the ground. The grubs become full grown by midspring, change in an eathern cell in the ground to the pupal stage, and in July and August emerge as beetles.

Their eggs are laid in rich soil with decaying vegetable matter. There is only one generation of June Bugs every year.

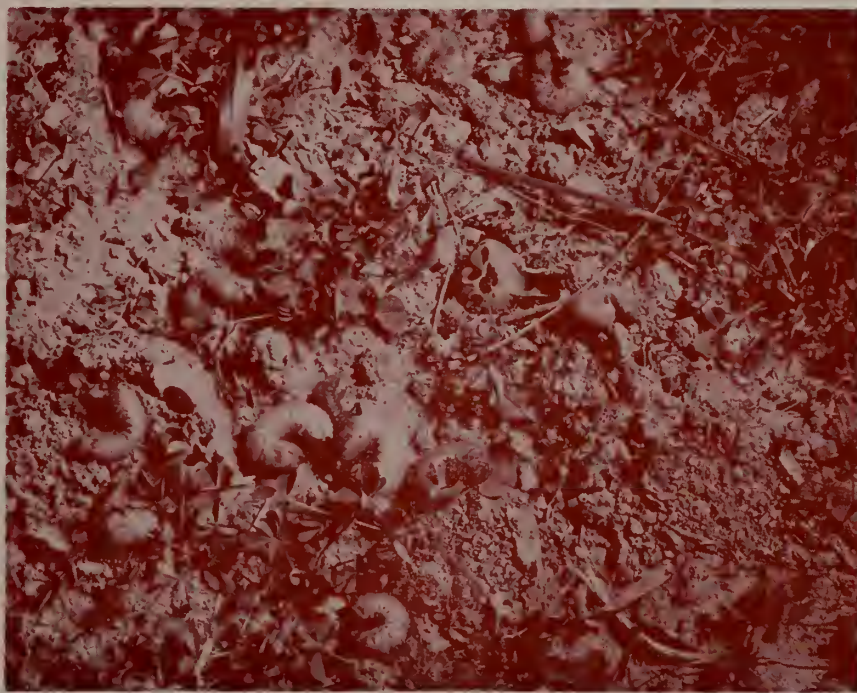
For the control of grubs in tobacco beds, entomologists suggest dusting the bed with one to five pounds of 1% Parathion to 100 square feet as soon as damage is noted.

Manure piles in the vicinity of orchards may act as breeding places for the beetles and so increase their number in the orchards, 'V' shaped troughs and flower pots have proved very effective in trapping the larvae.

Some of the organic poisons used in experiments are Para'hion, which

is quick acting but does not last long as an insecticide in the soil; Chlor-dane, Aldrin, Dieldrin, and some others which cannot be evaluated.

Very promising results were obtained by a demonstration performed recently on J. K. Earle's Dairy Farm in Greenville County. Para'hion was mixed in irrigation water, was applied on his pasture, and seemed to be very effective in killing the grubs. The grubs tend to emerge from the soil due to the action of the contact poison, the presence of water, and the fumes from Para'hion. However this is not a definite answer to the control of the grubs and no recommendations have been released. Additional research is necessary before definite conclusions can be reached.



Excessive moisture brings grubs to the soil surface.



The Agrarian Presents:

# Dr. John B. Whitney, Jr.

By HARRY VILDIBILL

## Botanist Scientist Educator

From farm boy to botanist, Dr. John Whitney of Clemson College is now at Oak Ridge, Tennessee, studying the application of Atomic Science to Agriculture. This new field of science has opened another door for the botanists to learn more about mineral absorption and utilization in plants through the use of radio active elements which can be traced wherever they go. Dr. Whitney was born in Augusta, Georgia, in 1916. He grew up much like any other farm boy would, but even in his very earliest years the future botanist had a keen interest in plants. It was fortunate for young John Whitney that his grandmother was a naturalist for through her he began to understand more and more about plants. His zeal grew greater and greater through her continued search for plants that could be adapted to Southern conditions. His grandmother's garden in Augusta was a paradise where young Jack (which was his nickname) came to spend many pleasant evenings.

When old enough, Jack entered Richmond Academy in Augusta, where he received his last two years of high school and his first two years of college work. During the first two years at Richmond Academy, he



Dr. John B. Whitney

was on the track team, and during the last two years he played football.

Following this period of schooling, Jack entered the University of Georgia, majoring in Botany, and becoming an honor student. He was interested in dramatics, debating, and glee club work besides being on the Business and Editorial staffs of college publications.

During the summers Jack was nature instructor at a scout camp. Graduation came but this was not the end of Dr. Whitney's college education. He went on to earn his M. S. degree at the North Carolina State College of Agriculture and Engineering. In the summers now he worked with the Experiment Station at Raleigh, where most of his work was with cotton. At N. C. State he was on a fellowship and upon graduation he received another. This time the fellowship took him to Ohio State University, where he met a student botanist who later became Mrs. Whitney. The summers now were spent at Mountain Lake Virginia Biological Station, where he plunged deeper and

deeper into the mysteries of the plant world. Finally, Dr. Whitney emerged with three degrees—B. S., M. S., and Ph. D.

In 1941 the war had begun in Europe. America's supplies of European materials were cut off and there became a greater need for substitutes. Dr. Whitney joined the research staff at the Eucusta Paper Company in Brevard, North Carolina. Here he was plant physiologist, finding flax plants from which a linen paper could be made directly, instead of from linen rags as was formerly done. Since our linen supplies were cut off from Europe, a substitute way of making this paper had to be found. The whole cigarette industry depended upon it. Dr. Whitney got to work. American farms already grew flax, not for making linen as there was no linen industry in America, but for making linseed oil. The oil was pressed out of the seed, but the straw was left in the fields. Was it this straw, a by-product of the linseed oil production that could be converted into linen paper? Dr. Whitney was there to help find out and they did find out. Cigarettes all during the war were, and still are wrapped in linen paper made from straw instead of linen.

The United States was in war now, and Dr. Whitney's new title became Private John B. Whitney, U. S. Infantry. He soon rose to Corporal, then Lieutenant. Our Lieutenant Whitney came back from the war. His old job was still open for him, but it was not long before Dr. Whitney came to Clemson. It was in 1946, during the summer, that Dr. Armstrong, head of the Botany Department, began looking for a residence for the new staff member who would begin teaching in the fall. It looked

—Continued on Page 23

## WE SALUTE:

# BOBBY DUKE

Bobby Duke hails from Kingstree, S. C., deep in the heart of the Low Country. He is a senior in Animal Husbandry, planning to graduate in June, 1953. After a short term (?) in the army, he hopes to farm, raising a few beef cattle along with growing tobacco, cotton, and corn.

When he arrived at Clemson in September, 1949, Bobby was one of the smallest and scarest rats ever to answer to "Freshman Newboy!" and feel the sting of an upperclassman's persuader. However, this did not prevent his getting off to a good start in academic work. During his Freshman year he won a Sears Roebuck Scholarship and was tapped for Phi Eta Sigma. It was after the first semester of that year that he left the ranks of the regiment to join Band Company.

The next year, as a bad but still

small Sophomore, along with a few others on the company, Duke was awarded the "Steel Paddle" for proficiency with said instrument by the Rats of 1950. During the Sophomore year he was accepted into Alpha Zeta and received the Alpha Zeta Award for outstanding scholarship in the School of Agriculture.

The next year "Young Robert" got further into the extra-curricular activities at Clemson by being accepted into Mu Beta Psi, Tiger Brotherhood, and Phi Kappa Phi and joining the Taps Junior Staff. It was with this last organization that he learned to do with about half his accustomed amount of sleep and still present at least a half awake countenance in class at eight o'clock the next morning.

After a grueling five weeks at Fort Benning, Infantry Summer Camp,

Bobby left a few days early (with many good wishes from the rest of the boys) to take advantage of Danforth Fellowship, which afforded him a two weeks stay in St. Louis, Mo. with the Purina Feed Company and two weeks at Camp Miniwanca, Michigan, an American Youth Foundation camp for boys. This month's trip is given each year to one boy from each state in the U. S., one from Canada, and one from Hawaii, by the Danforth Foundation and the Ralston Purina Company.

This year Bobby is working as Feature Editor of the Taps. He has been active in the Presbyterian Student Association, serving at different times as secretary and treasurer.

Bobby has been selected for Who's Who among Students in American Universities and Colleges and won the Borden Award for scholarships in Agriculture.

The people of Kingstree, as well as Williamsburg County, can be proud of the wonderful record made by one of her outstanding sons of agriculture.

We salute—Robert W. Duke.

---

## RESOLUTIONS TO KEEP — for the farm family.

### RESOLVE TO:

1. Plan your farm program—as a family—for 1953 and don't just let it happen. Planning helps to take the guess work out of farming and **WELL THOUGHT OUT PLANS RARELY RESULT IN WORN OUT ACRES.**
2. Follow a soil building program—**IMPROVE THE WORST AND MAKE THE GOOD BETTER.** Good soil is like a good bank account; you have to make a deposit every now and then if you expect to keep drawing out.
3. Keep a farm record. A pencil is one of the most important tools on the farm if you will only make use of it. **YOU CAN DISCOVER A LOT OF LEAKS IN YOUR FARM INCOME THROUGH THE KEEPING OF FARM RECORDS.**
4. Increase your knowledge of farming by reading technical publications on the subject and by sharing the experiences of other people who are doing the same job. **PROFIT BY THE OTHER FELLOW'S MISTAKES.**
5. Make some outstanding home improvement. There is nothing gained in the mere accumulation of wealth.
6. Devote some of your\*time to recreation—family recreation. The family that plans together will usually work together.
7. Be more neighborly in '53. Find an interest in other people and other people will have an interest in you. Friendships are cheap at any price.
8. Go as a family to Sunday School and Church each Sunday in 1953. Doesn't it impress you to see a family—father, mother, sister, brother—going to Church together? **SHOW YOUR CHILDREN** how to live instead of just telling them.
9. Cooperate with your neighbor and boost your community through some community organization. **THERE IS STRENGTH IN UNITY.**
10. Keep your resolutions, **BECAUSE WHAT YOU GET OUT OF THE YEAR 1953 WILL** depend largely on what you put into it.

(Anonymous)



# YARDSTICK OF THE CHICKEN AS AN EGG FACTORY

Farmers and commercial poultrymen are confronted with the problem each winter or early spring as to which hatchery or breeder they should patronize in ordering chicks that will produce good results in the laying house. It is very important to the buyer that he purchase quality chicks for developing his laying flock. There are primarily three different official basis on which a farmer or commercial poultryman may select his flock replacement chicks. These are: the "National Poultry Improvement plan", the "Random Sample Egg Laying Tests", and the "Standard Egg Laying Tests."

The National Poultry Improvement Plan (N. P. I. P.) represents more chickens and breeders than any other official test or official organization. Since its beginning in 1935, it has been made up of the breeding phase and the pullorum control and eradication phase. The breeding phase is composed of four stages: U. S. Approved, U. S. Certified, U. S. Record of Performance (R. O. P.), and U. S. Register of Merit (R. O. M.). The last three of these are important from the standpoint of superior birds for egg production.

An R. O. P. female is one that produced 200 or more eggs in her pullet year or 180 or more eggs in her first 300 days of lay. These eggs must average at least 24 ounces per dozen. R. O. P. chicks are the offspring of R. O. P. males mated to R. O. P. females. Certified chicks are the offspring of R. O. P. males mated to Approved females.

During 1950-1951, 246 breeders in 39 states participated in the R. O. P. phase. These breeders trapnested 180,092 R. O. P. candidates of which 48.8 percent qualified as R. O. P. hens. The average egg production of these R. O. P. candidates was 198 eggs for the year's record and 55.4

percent production for the 300 day record. The N. P. I. P. now publishes each year the "R. O. P. Summary." It is the production records of the breeders who participate in the R. O. P. phase of the plan. It includes, among other things, pullets of one breed and variety on a farm, pullets entered in R. O. P., percent qualifying as R. O. P., average egg production of all pullets entered, average egg weight of all pullets entered, and average body weight. Individual breeders have records of 81.6% of all pullets entered being qualified as R. O. P., 261 eggs per pullet per year for all pullets entered in R. O. P., and a 248 egg average in 300 days for all pullets entered.

A farmer or commercial poultryman can very effectively use the N. P. I. P. and its stages as a guide in selecting the breeder or hatchery

By  
**HOWARD N. RAWL**  
Poultry '53

from which he should purchase his replacement stock. The "R. O. P. Summary" is very useful in the selection of a place to buy chicks which will make good records in the laying house. This summary can be obtained from the official state agencies or the Bureau of Animal Industries, United States Department of Agriculture, Washington, D. C.

The "Random Sample Egg Laying Tests" is a comparatively new test. The first test of this type was in 1949-50 in California. Random sample tests are also operating in New York and Georgia. These tests are designed to be a test on the same chicks that are for sale to the general public. These chicks are selected by an impartial person such as the county agent, the agriculture teacher, the R. O. P. inspector, or any other

officially-designated person. All of the entries in a particular test are under similar environmental influences. Complete and detailed records are kept on each entry in these tests.

California, the first state to have a random sample test, has completed three tests of this type. An entry in the second test consisted of 100 straight-run day-old chicks which were selected at random. The pullets were kept through a six months growing period and a year's laying period. The 40 pens which entered this test were ranked on the basis of net income above feed and chick cost per pullet chick started. The winning entry in this second test was White Leghorns with a net income of \$8.11 and 268 eggs per pullet chick started. The owner of this entry had another entry of White Leghorns in this test which placed twenty-second from the top. The average for the 40 entries was \$5.89 and 215 eggs per pullet chick entered. The best livability in the second test was obtained by an entry which had 54 pullet chicks to enter the test and 53 hens to complete the test 18 months later. The average mortality for the 40 entries was 18.2 percent. The eggs were graded in this test and one entry had a production of 198 large eggs of AA or A quality per pullet chick started. This entry ranked second in this test on the basis of net income.

The results of the "California Official Random Sample Egg Laying Tests" can be obtained by writing to the Poultry Improvement Commission at Modesto, California.

The "New York Random Sample Poultry Test" is operated somewhat differently from the California test. The chief differences are that it lasts for only 500 days, approximately 50 pullet chicks are entered, and the chicks are reared from day-old to

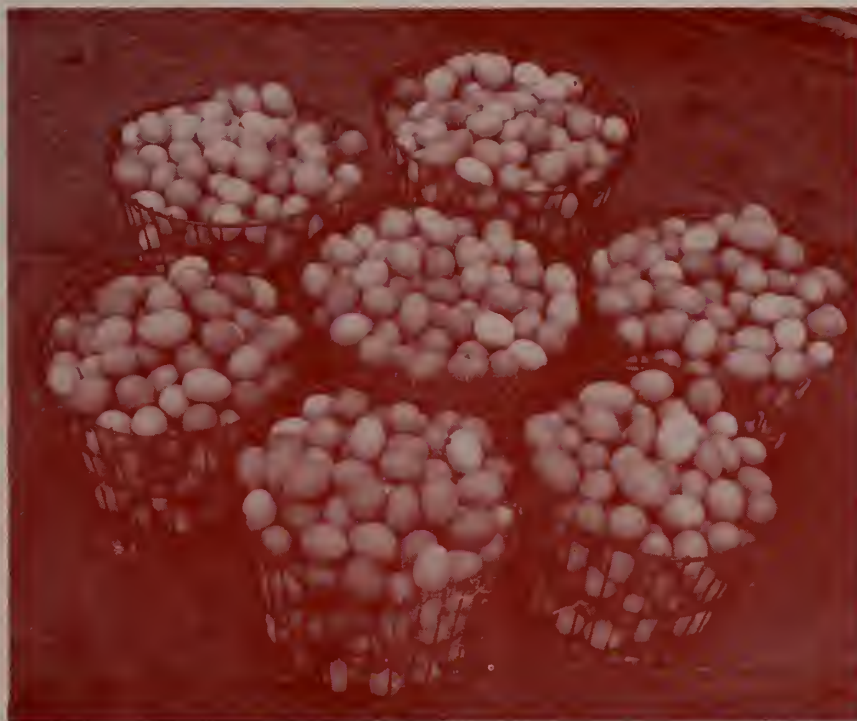


two weeks close to old hens. The disease most important from this standpoint is leukosis which the better breeders breed for resistance to in their stock.

Two tests of 33 entries each have been completed at the New York test. The entries are ranked on net income above feed and chick cost per pullet chick entered. The winning entry in the first test was an entry of a New Hampshire Red which won by a fairly wide margin of \$89.40. The record for this winning entry was a net income of \$2.95, an egg production of 191 eggs per hen housed, and a mortality of 28 percent for the 500 days. The average of the 33 entries was a net income of \$1.27, an egg production of 130 eggs per hen housed, and a mortality of 41.9 percent for the 500 day period. The winning entry in the second test was a White Leghorn entry with a net income of \$3.10, an egg production of 223 eggs per hen housed, and a mortality of 12 percent for the 500 day period. The average for the 33 entries was a net income of \$1.67, an egg production of 172 eggs per hen housed, and a mortality of 40.8 percent for the 500 days. An average of the 28 entries in both tests show that a New Hampshire entry had the best average on net income. The record of this entry was a net income of \$2.54 per hen, an egg production of 189 eggs per pullet housed, and a mortality of 25 percent. The average record of the 28 entries in both tests is a net income of \$1.50 per pullet, an egg production of 151 eggs per pullet housed, and a mortality of 40.6 percent.

The results of the "New York Random Sample Poultry Tests" can be obtained by writing to the Department of Poultry Husbandry, Cornell University at Ithaca, New York.

The first "Georgia Random Sample Egg Test" was started with chicks on April 1, 1951, and ended on September 15, 1952. Only one test has been completed at Georgia. An entry consisted of 100 pullet chicks selected at random. At 180 days of age, 60 pullets were selected at random and these 60 pullets made up an entry upon which the results were based.



**DOZENS of good breakfasts—South Carolina needs twice as many eggs per hen or twice as many hens to produce the eggs we consume.**

The laying period was 350 days. No culling was done in this test. The 28 entries were ranked on the basis of net income over feed and chick cost per pullet housed. The winning entry in this test was White Leghorns with a record of 108 eggs per pullet housed, a mortality of 14.5 percent and a net income of \$3.41. The average record of the 28 entries was 164 eggs per pullet housed, a mortality of 24 percent, and a net income of \$1.70.

The tests which are now known as the "Standard Egg Laying Tests"

have been in operation since 1911 when the first test was started at Storrs, Connecticut. The average production of all the hens in this test was 145 eggs per hen. The first pen at this test to reach the 200 mark was in 1919 when a pen averaged 202 eggs per hen. Thirty years later, the highest pen at this test produced 305 eggs per hen.

An entry (pen) in the standard tests consists of 13 pullets. The breeder selects the 13 pullets. He can enter as many pens or as many tests as he desires. At any particular test

all the pens receive uniform management practices and the same feed. The birds are trap-nested at most of the tests, but Pennsylvania is one state which is not trapnesting this year. Only number of eggs produced and the size of the eggs, both of which go together in figuring points, are taken into consideration in the standard tests. The pens are ranked on the basis of points. The tests are now carried on for a fifty weeks laying period.

There were 15 standard tests operating in 1950-

1951, but only 11 standard tests are operating at the present time.

The winning pen in all the standard tests in 1951-52 had a record of 302 eggs per pullet entered. A summary of the standard tests usually appears in the November issues of most poultry magazines.

Poultry Tribune presents annually an award on the basis of average number of points per bird entered to the breeder who enters 65 or more pullets of one breed in all the standard tests. This appears to be

—Continued on Page 15

# Winter Care of Livestock

By HARRY VILDIBILL

Pre-Vet. '53



**Dairy Heifers  
in excellent winter condition**

Having healthy animals on the farm all year 'round is something worth working for. Freedom from disease and pests plus a balanced feeding program are essentials for the success of livestock producers as well as for the health of the animals. Yet, each year, especially during the winter, many animals suffer from conditions caused by neglect.

Probably the greatest neglect occurs in an animal's feeding. Every winter many animals become poor, young animals are set back in their growth, and expectant mothers bring only weak young, or no young at all. Profits cannot be starved out of an animal grower because starved animals become very susceptible to disease. When no feed, or very little feed is given an animal, heat and energy must be taken from reserves stored in her body. The first reserve that is used is glycogen, an animal's starch stored in the liver. The next is the body fat which is the main source of heat and energy during a low state of nutrition. When the fat is gone, protein is taken out of the muscle. This is the last source of heat and energy.

A pregnant animal will keep her unborn young nourished as well as possible, even drawing proteins from her own tissues and minerals from her skeleton, but if starvation is continued, the fetus will be reabsorbed.

Early weaned calves on pasture or hay alone will live, but will they grow? This depends upon the age, the kind and the condition of the calf. If calves are taken away from

milk too soon and not allowed concentrates, growth will be slow.

A young calf's rumen is too small to hold the amount of roughage required to provide enough nutrients for proper growth. If calves are not growing well some concentrates will probably help. At Clemson the beef calves are allowed to run with their dams. As the milk supply gradually declines the calves will eat more and more roughage. By the end of the lactation period the young calves will be growing well on full pasture without even having grain. On the other hand, in a dairy where the amount of milk for calves is rationed, a grain mix is fed and some grain is given until the heifers are from eight months to a year old.

Freedom from pests all the year round is probably the second greatest concern of the animal grower. We all have seen how flies worry a cow in the summer and we have thought what a help her tail was, but in the winter, animals are even worse off without our help, for their tails do little good against the winter pests. Summer and winter, animals should be free of pests, but the winter ones we are now concerned with are mites, lice, and cattle grubs. Almost all cattle are plagued with them during winter if protection is not provided. Lice live by sucking blood or by biting bits of skin and hair. The itching which results causes much discomfort and restlessness and you can often see animals scratching. Both the quality and quantity of their meat and milk production is decreased, milk production dropping as much as 15-20 percent. Vitality too, is lowered.

Lice begin their activity as soon as the weather begins getting cool, so that is the time control should begin. If treatment is delayed, large infestations result and the lice do not begin to die until warm weather comes.



**Beef Calves  
in excellent winter condition**

Benzene hexachloride (BHC) or DDT is the recommended control, using amounts according to strength—3 pounds of wettable 12 percent gamma isomer BHC or 6 pounds of 6 percent gamma isomer BHC is required per 100 gallons of water for a spray mixture. DDT is used in the proportion of 25 pounds 50 percent wettable to 100 gallons of water, but must be applied in two applications 15 days apart. Lindane, which is refined BHC, should be used for milking dairy cattle because the odor of BHC will be absorbed by milk. 1.5 pounds of 25 percent lindane per 100 gallons of water is the recommended proportion, if tail lice are suspected, dip the whole tail in the spray mixture. A note of warning . . . do not use lindane on calves under three months of age and use dust instead of spray on young animals when the weather is cold.

Hogs too, need the farmer's help in lice control. Like the cattle lice, hog lice have the greatest activity in the winter months. Old crankcase oil will control them; the easiest method of application is to let the hog oil himself against a hog oiler. 1 pound of 50 percent wettable 1.5 percent DDT in 4 gallons of water to spray both hogs and hog houses is recommended more highly, however, thin the oil for a thorough control of badly infested hogs.

Cattle mange caused by mites which live on lymph instead of blood,

—Continued on Page 26



# DOWN TO EARTH

By JOE O'CAIN



## January...

*Turning To The  
New Year*

The new world!  
White and silent.  
And innocent.

\* \*

Oh, Lord, give me a glory  
And a workman's pride,  
For you gotta get a glory  
Or you're dead inside!

—Berton Braley

\* \*

O weary Earth, upon whose breast I sow  
These seed, dear Nature's young so innocent,  
Smile! Swell your sullen furrows cold below  
And dwell triumphant neath God's firmament!

I wait. . . watch silently for each pale face  
To smile upon your love-sucked breast serene.  
I watch your soft green flowing gown of lace,  
Each frill, each bow, each polkadot of green.

I wait. . . wait for a calm cool breath of spring  
To bind my love with Nature's smiling young.  
God! I wait for Thy mighty hand to cling  
My pen and write the songs that Thou has sang!

—Joe O'Cain

January—snow flakes, gray-lace trees, new blood for thought! A clean sheet flips over.

What's up for '53? I wonder. The world will keep her stride, the city's smoke keeps edging into the countryside. . . The birds keep making big plans for a double sized family next spring, and the world lives on! There's lots of work to do, and I keep thinking

"If He called, I could not answer.  
for life I have not lived."

(—O'Cain)

Sunshine and marbles!

And the little barefoot boy squats in his own original and sort of technical manner and knocks them all out of the ring again. The new "deferred" spring sun shines down like a full-grown sun in June, and cheers from a nearby political rally are heard.

And so another spring story begins—unlike the old stories. New conversation fills the air—conversation of the long-talked-of truce talks, political arguments, this and that. I wait and watch, admire, and declare "there's more work to be done." And. . .

JANUARY 1953

## FACTS and FIGURES

By DON DUNLAP  
Horticulture '54

Approximately 12 million acres of South Carolina land is devoted to forest crops which represents 60 percent of the total land area in the state. The annual cut of one billion board feet of sawtimber and approximately 1,200,000 cords of pulpwood and other forest products produced annually results in forest operations being the second largest source of income in the state.

\* \*

Four Clemson freshmen have just returned from Chicago where they attended the National 4-H Club Congress and the National Junior Livestock Show. Billy Joe Bales, James Riley Hill, Jr. and Charles Marshall received \$300 scholarships each at the 4-H Club Congress. John Henry Turner was one of the representatives to the National Junior Livestock Judging Contest from South Carolina.

\* \*

A demonstration carried on in Chester County showed that by irrigation 800 pounds of lint cotton was produced per acre as compared to 500 pounds per acre on land that was not irrigated. The Extension Service is promoting the use of irrigation on farms of South Carolina.

\* \*

Billions of people today get most of their food calories indirectly from corn and many million get most their calories directly from corn. The total contribution of the corn plant in feeding man is probably greater than that of any other cultivated plants on earth.

"Oh, you gotta get a glory  
In the work you do;  
A hallelujah chorus  
In the heart of you.  
Paint, or tell a story,  
Sing, or shovel coal,  
But you gotta get a glory,  
Or the job lacks soul."

(—Berton Braley)

ELEVEN



# HORTICULTURE *a great science*

By **BILL GARREN**  
Horticulture '53

Your first reaction to horticulture might be and probably is, "What does that big word mean?" In this article the author will attempt to define it, not as a specific definition, for there are numerous and various descriptions, but rather by citing occurrences and "goings-on" in this field. In this manner the reader will better be able to draw his own conclusions and have some knowledge of horticultural science.

Probably the first horticultural plants to be recognized were berries, herbs, and some vegetables which were used as food by primitive man. It is thought that plants were cultivated 10,000 to 12,000 years ago and probably they were cultivated for food purposes. This means that horticulture had its beginning some 10,000 to 12,000 years ago.

From the primitive period we move into a period where horticulture was thought of in its terms of fruit growing. This particular period existed until the last of the nineteenth century. Next, vegetable growing was introduced as a branch of horticulture. Within the last thirty years ornamental horticulture has been gaining rapidly in prominence.

Now, that you have some background of horticulture, maybe you can see why it is so difficult to define. It is ever changing. Horticulture contains more variation in the field of knowledge than any other science. It has brought as much beauty to the world as has nature with her mountains and streams.

Our problem today is to keep our minds flexible, because this is a day when horticulture is still in the formative stage.

No longer is horticulture thought of only as the growing of flowers, fruits, vegetables, and ornamental trees and shrubs, but in its modern concept it has moved out of such restricted application and is now, in many in-

stances, an enterprise embracing large acreages of profitable and advantageous cultivation.

Horticulture is also a point of view; a field of thinking, of activity; of operation; a rallying point. This science acts as a liaison function or a connecting link between itself and other agricultural sciences.

In England, horticulture is a definite craft in itself and is not considered an agricultural department.

Horticultural plants are characterized by the fact that they are treated individually, are being grown intensively, and that their products are

---

## *HORT... Do You Know?*

**Horticultural plants are unique in their culture and characteristics . . . The sweet potato flower produced at Clemson is a doorway to progress; Clemson research brings a "Red Hot" pepper too hot to pick; Clemson peaches are known throughout the United States. Horticulture brings health and beauty to the world. Be sure to read Bill Garren's excellent article on Horticulture in this month's Agrarian.**

*—Editor*

---

consumed and enjoyed immediately or shortly after harvesting. As such they are staple products and can be kept for a limited time or stored only with difficulty. These horticultural plants are divided into six groups: fruits (pomology), vegetables (olericulture), flowers (floriculture), bulbs (bulb growing), trees and shrubs (arboriculture) including both fruit trees and ornamentals, and seed growing.

Since horticultural plants are unique in their culture and characteristics, it might be appropriate to include in this article the interesting sidelines of experimentation and research in horticulture.

First of all, the sweet potato is, as you probably know, a very difficult plant on which to produce blooms. An optimum condition is necessary if blossoms are to be expected in the field. Many people are unfamiliar with the sweet potato flower—further evidence of its rarity. Furthermore, most sweet potato growers are not interested in the sex life of the plant because the flowers do not put money in their pockets. However, here at Clemson the flower is our doorway to progress. One entire greenhouse is devoted to the production of sweet potato blossoms so that new and improved varieties may be available to us, the public. In order to carry on such a research and breeding program, it is necessary to have a source of material; so a cooperative program was organized as a means for the breeder to obtain sweet potatoes from other states as well as foreign countries. Expeditions from many colleges and universities have been sent to foreign countries to look for and bring back sweet potatoes which have desirable characteristics.

The sweet potato on your plate when you sit down to a hot meal is most likely the Porto Rico variety. Why? Because this is the type of potato that the public demands and the type that the research workers are trying to improve. There are many vexing problems facing the sweet potato breeder. Outstanding among these is the never ending search for a plant that is wilt resistant. Other problems include producing a root that will bake, yield, and sprout well. The Porto Rico comes closest to all these characteristics, but there is still room for improvement.

Sesame is "for the birds"! That is, it was for the birds until it was discovered that the seed of this plant contained approximately fifty percent

—Continued on Page 27

# SOIL CONDITIONERS

Natural soil conditioners has long been known to the agricultural man, however, synthetic soil conditioners have been discovered. This article has been written with the hope of clearing up some of the misconceptions about soil conditioners and their relation to the soil. It should be clearly understood that the soil conditioners are not miracle drugs that improves soil structure as if by magic.

To the average college student, the soil is a solid and is made up of small particles, and this is about as far as his knowledge goes in this field. However, let us all remember that the stuff we walk around on during our lifetimes is very complex and dynamic in nature.

The term "texture", which is so often confused with structure, is used to mean the size of the particles or the make-up of the soil from the standpoint of the percentage of the different-sized particles. Structure is a term used to indicate arrangement of the particles, or the condition of the soil with respect to the aggregation or granulation of the soil particles.

Sand, of course, has a single grain structure, but this is not objectionable or detrimental in the coarser soils. In the finer soils such as clays, single-grain structure is very objectionable or undesirable because the pores in the soil are so very small, therefore such soils are often very poorly drained. Also detrimental gases cannot escape nor can oxygen get in which would result in death to the plant roots. This condition becomes even worse due to the fact that anaerobic bacteria begin working on the nitrates and other compounds, and converting them to the elemental state. All these conditions can be brought on to some extent by poor soil structure. Therefore, good soil structure is of great

importance as far as crop production is concerned.

The desirable condition in a heavy soil, such as there are in some areas of the piedmont of South Carolina, is that of a "crumb" structure or granular condition. This condition is brought about by nature to some extent in soils sufficiently supplied with organic and mineral colloidal matter.

Organic matter is added to the soil in a number of ways. The soil organisms, micro and macro, attack this organic matter in the soil in order to obtain energy and nutrients for satisfying their own needs for growth and reproduction. In this process the organic matter is finally reduced to a brown or blackish substance called humus. Humus is colloidal in nature and possesses an exchange capacity. Besides this, humus along with

**PHILIP D. DUKES**  
Agronomy '53

partially decomposed organic matter is able to hold the particles of soil together in such a way as to cause granules or aggregates to be formed; this results in a desirable soil structure. Therefore, organic matter and its decomposed components are natural soil conditioners.

In December 1951, Monsanto Chemical Company announced that its research had successfully developed a series of synthetic resin soil conditioners, among them a hydrolyzed polyacrylonitrile and other experimental polyelectrolytes. These compounds in preliminary experiments showed spectacular power to improve the physical condition of high clay content soils. Early development work showed that these soil conditioners would be uniquely valuable in agriculture, especially in horticulture and erosion control. Therefore, Monsanto expanded its facilities for commercial production

of these soil conditioners. These commercial products were put on the market under the trade name of Krilium.\*

Krilium resin is a synthetic compound replacement for the natural polysaccharides or polyuronide resins derived from the soil humus. The manufacturer of Krilium indicates that this soil conditioner retains its aggregating power against decomposition by soil microorganisms in some cases at least 10 times as long as the natural crude organic matter. Also, it requires from 50 to 100 tons of manures or other residues to produce one ton of polyuronides. These natural soil binding gums, however, are themselves rapidly decomposed by soil bacteria, making it necessary to maintain adequate gum-producing humus by constantly adding large quantities of organic matter to maintain the structure of the soil. As a measure of structure improving power, one pound of this soil conditioner is equivalent to the natural gums produced by 100 to 1000 pounds of manures or plant residues.

THE HOME GARDENER was quick to recognize the possibilities of such a product. This created a great demand for these products, even before the manufacturers could meet the demand. As a result of the great demand, many companies developed similar products in order to capitalize on the good market.

J. P. Livingston and I have conducted some experiments using four of the piedmont soil series, with various applications of three soil conditioners. Results are not complete as yet, however, the time of emergence of rye seedlings on soils treated with these conditioners was of interest. The rye plants in the treated soils emerged earlier than in the non-treated soils. Also, there was a definite improve-

\*Krilium—Trademark of Monsanto





## AGRICULTURAL CLUBS

There are, in the Clemson College School of Agriculture, two honorary clubs and seven professional clubs. Alpha Zeta, one of the honorary clubs, is the only agricultural organization on the campus which is open to members of every department of the School of Agriculture. The other honorary club, Alpha Tau Alpha, is open only to vocational agriculture majors.

### ALPHA ZETA

Alpha Zeta is a national organization which proposes to "promote the profession of agriculture; to establish, foster, and develop high standards of scholarship, character, leadership, and a spirit of fellowship among all its members; to create and bond together a body of outstanding technical men who by scholarly attainment, a faithful service, and maintenance of ethical ideals and principles have achieved distinction and are capable of honoring achievement in others; to strive for breadth of vision, unity of action and accomplishment of ideals; to commend all worthy deeds, and if fraternal welfare demands, to counsel with its members."

Alpha Zeta members are selected from agricultural students "of high scholarship on the basis of character, leadership, and personality." This year fifteen new members were admitted. The officers for the current year are J. P. Fulmer, Chancellor; P. L. McCall, Jr., Scribe; J. B. Stanley, Treasurer; J. D. Early, Censor; J. A. Graham, Chronicler.

This organization, at the present time, is sponsoring the publication of the Agrarian.

FOURTEEN



(Officers of Future Farmers of America, one of the nine Agricultural clubs at Clemson)

Officers—From left to right—J. B. Monroe, Advisor; F. E. Shelly, Reporter; J. D. Beam, Vice President; J. E. Coggins, President; F. G. Best, Secretary; and L. D. Coleman, Treasurer.

## PROFESSIONAL CLUBS

Each of the seven professional clubs is sponsored by one of the major departments of the School of Agriculture. The professional organizations include the American Society of Agricultural Engineers, the Block and Bridle Club, the Clemson 4-H Club, the Dairy Club, the Future Farmers of America, the Junior American Society of Horticultural Science, and Kappa Alpha Sigma.

### ASAE

The Clemson Student Branch of the American Society of Agricultural Engineers is an organization of students majoring in Agricultural Engineering. Its purpose is to bring the students closer together and to promote their interests in professional advancement in the agricultural engineering field. It encourages work and fellowship among the members and better relations with the faculty and department workers through projects, field trips, and social activities.

Our student branch is growing rapidly along with the Agricultural Engineering Department. Sixty-two members are presently enrolled in

—Continued on Page 23

## INITIATION OF NEW MEMBERS

The fraternity of Alpha Tau Alpha has had several meetings this year during which time the new members have been accepted, and initiated and plans laid for the work and activities of the chapter. The officers of A. T. A. were selected at the last meeting of the fraternity last year as follows: President, Ronald M. North, Stockton, Ga.; Vice-President, Edward D. Howey, Fort Mill; Secretary, Raymond L. Kelly, Forest City, N. C.; Treasurer, Gene A. Norris, Conway; and Reporter, James G. Flanagan, Clover. New members who were taken into ATA are Norman E. McGlohon, Laurens;; Herbert R. Corbett, St. Matthews; Clyde C. Lucas, Gascon; Clarence K. Palmer, Seneca; and David W. Howe, Hickory Grove.

The chapter has already begun work on some of the projects which we plan to complete this year. The major project is the building of a scroll on which all of the past ATA members will be listed by name and number and grouped according to the year they graduated. We also plan to construct an electrically lighted emblem to be used in initiations and meetings. On the lighter side of the fraternities activities, we will have a banquet near the end of the first semester.

THE AGRARIAN



# Value of Collegiate FFA

The Agricultural Education faculty and students feel that a Collegiate F. F. A. Chapter is very essential to the training of agriculture teachers. The chapter operates under a carefully prepared constitution and by-laws. Officers of the chapter are elected twice a year in order to give more individuals leadership training. Meetings are held regularly on the second and fourth Tuesday nights of each month. As a part of the recreation provided by the chapter, a fish fry is staged in the Fall and a camping trip in the Spring quarter for all members and guests.

Learning how to conduct and participate in these recreational activities will greatly benefit the student who is to become a local chapter advisor. It also increases the opportunities for leadership experience, helps members to become better acquainted, and promotes a better understanding between students and teachers.

The Collegiate F. F. A. Chapter is invaluable to students in Agricultural Education because it provides a chance to develop leadership, character, and fosters friendly relationships among the members and helps them to grow socially into better,

more complete individuals. This training may not have been otherwise received, and it is training that a vocational agricultural teacher cannot afford to be without. The knowledge gained from serving as an officer or on various committees should prove very beneficial in setting up, organizing, and advising an F. F. A. chapter when the student becomes a local advisor.

There are some students enrolled each year in Agricultural Education who have not had vocational agriculture in high school or any F. F. A. experience. The Collegiate Chapter affords these students many of the experiences which they have missed in F. F. A. work. The Collegiate F. F. A. is also a means of keeping chapter members informed of the activities of the State and National F. F. A. Associations and of any changes which may occur in these organizations.

The prospective teacher of Agriculture who takes an active part in the Collegiate F. F. A. Chapter will feel more at ease, have more confidence, and will be better fitted for the job as advisor to the local chapter in which he becomes the teacher of Vocational Agriculture.

portant than the breed purchased. This is true whether the chicks are being purchased for layers or broilers. Many farmers are buying a broiler strain of chicks to be used as layers and vice-versa. This mistake alone is enough to be responsible for one being dissatisfied with his farm flock. No breeder has yet bred and proven that he has combined outstanding egg production and outstanding broiler qualities in the same strain of chickens. Some breeders are breeding for this, but they have a very difficult problem ahead of them.

There are also broiler tests which furnish official reports of the results with broiler strains. These tests are as important to the testing of broiler strains as are the test for egg-producing strains. Buy for a purpose.

## Horticultural Club

The Horticultural Club is the professional club for all students interested in landscaping, ornamentals (shrubs, flowers, and flowering trees), vegetables, fruits, and food preservation. The Horticultural Club is the intermediary in which its members are able to meet outstanding leaders in horticulture and to keep up with new developments in horticulture by the use of films.

The club of the Horticulture Department is one of the oldest clubs on the campus. The club was organized in 1925 by the late Professor C. C. Newman who at the time was head of the Horticulture Department.

The purpose of the Horticultural Club is to stimulate interest in the field of horticulture, to keep its members informed on the newer developments in the ever increasing field of horticulture, and to provide an opportunity for its members to meet with experienced horticulturists who are qualified to give first hand information on problems that confront a beginner in the horticultural profession.

Newly elected officers include the following persons: J. P. Fulmer, president; W. R. Garren, vice-president; R. H. Donaldson, secretary; C. E. Atkins, reporter.

The faculty advisors are T. L. Senn and F. W. Thode.

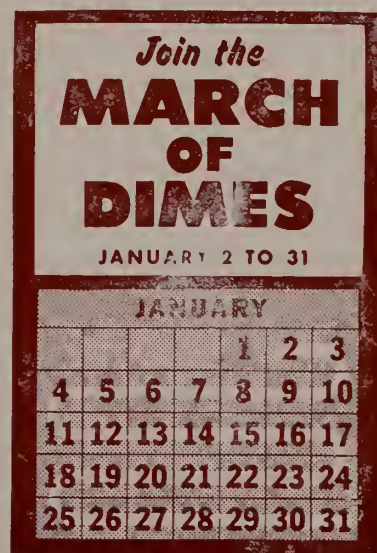
## Yardsticks of the Chicken As an Egg Factory

Continued from Page 9—

the most significant award to win in the standard tests. The ten highest based on breeders eligible for this award is published in the November issue of Poultry Tribune. The winner of this award in 1951-52 entered 65 White Leghorns in the standard tests. The record of these hens was 263 eggs per pullet entered and a livability of 92.3 percent.

In selecting the breeder or hatchery from which a farmer or commercial poultryman should buy his chicks, it should always be remembered that the strain of chicks that are purchased is much more im-

JANUARY 1953



FIFTEEN



## Agronomy Students At Convention

Five agronomy students attended the convention of the American Society of Agronomy which was held in the Netherland Plaza Hotel in Cincinnati, Ohio from November 17-21. The students that attended were: A. D. Boggs a senior from Seneca; D. N. Chamblee a junior from Anderson; P. D. Dukes a senior from Reevesville; L. C. Lawson a senior from Darlington; and P. L. McCall Jr. a senior from Hartsville.

The students were accompanied by Dr. C. M. Jones and professor B. M. Ritter of the Clemson Agronomy Department. The party left Clemson for Cincinnati on Sunday November 16th, and arrived in Cincinnati in time for the meetings which began at one o'clock on Monday, November 17th.

Laurie Lawson, president of the Clemson Chapter of the Student Activities Section, and Philip Dukes secretary were the two delegates to the student meetings. Each chapter was permitted to have two voting delegates. The other three students, Alan Boggs, Neil Chamblee and Peter McCall attended some of the student meetings, and also some of the meetings of the Parent society which were held simultaneously.

The party left Cincinnati late Thursday afternoon after the meetings and drove back to Lexington, Ky., where they spent the night. The next morning they continued their journey toward home. About ten o'clock it began snowing, and continued all day. Late in the afternoon after traveling from ten o'clock to six o'clock and traversing only approximately sixty miles across the state of Kentucky, they decided it was impossible to proceed any fur-

—Continued on Page 26



Shown above are four of the five agronomy students that attended the convention of the American Society of Agronomy which was held in the Netherland Plaza Hotel in Cincinnati, Ohio from Nov. 17-21. They are from left to right Neil Chamblee, Alan Boggs, Laurie Lawson, and Peter McCall Jr. (Photo by Philip Dukes)

## DR. PADEN RECEIVES HONOR

Dr. William Reynolds Paden, Agronomist of the South Carolina Experiment Station at Clemson College, was elected a Fellow of the American Society of Agronomy at its annual meeting held in November in Cincinnati. This signal honor bestowed on Dr. Paden by the Society is in recognition of his outstanding service and technical contributions in the field of agronomic research.

Dr. Paden, a native of Missouri, was graduated from the University of Missouri and received the M. S. and Ph. D. degrees from the University of Illinois. He has been with the South Carolina Experiment Station since 1929.

Dr. Paden's research contributions have been in the field of soil chemistry, soil fertility, and crop production. He has given special considera-

tion to the relative efficiency of different forms of nitrogen and the effects of the application of minor nutrients to different soils in crop production. Other contributions of his include research on the intensity of removal of cations from soils and plant tissue by electrodialysis, the relation of the cation saturation of soils to yield and composition of crops, and the effects of various rates of application of calcium arsenate to different soils on the yields of certain crops.

He has served on numerous committees of the American Society of Agronomy and the Soil Science of America. He has also been very active in the Southern Section of the American Society of Agronomy and has taken a leading part in practically every phase of the activities of the southern agronomists.



# FURROWS



Pictured above are four of the prominent men who took part in the S. C. Dairy Association meeting at Clemson College. From left to right are: C. G. Cushman, leader of Dairy Extension work in South Carolina; M. E. Woolen, 1952 President of SCDA; Mr. Goodale, professor of dairying at Clemson, and Dr. Samuel Brody, professor of Dairy Husbandry at the University of Missouri, who was one of the main speakers.

## S. C. Dairy Association Meets

Clemson College was honored to be the host of the eighth annual meeting of the South Carolina Dairy Association.

The association opened its convention by their registration in the Clemson House. After registration the delegates were divided into groups according to the field of work in which they were most interested. Here they discussed detailed problems which face dairymen.

M. E. Woolen presided over the business meeting which was held on Wednesday morning. The convention really got under way with the keynote address by C. R. Schoby, president of the American Dairy Association. He was followed by Dr. Samuel Brody, who discussed climate, dairy industry, and milk products.

To put the finishing touch to a wonderful convention, the annual banquet was held in the Saber Room of the Clemson House at 7:00 P. M. The group was extremely fortunate to have Professor J. D. Lane as toastmaster and Col. Jack Major, of Paducah, Kentucky, as the main speaker.

## FACTS ABOUT KAPPA ALPHA

Kappa Alpha Sigma, the Clemson Chapter of the Student Section of the American Society of Agronomy, was established at Clemson in 1937. Kappa Alpha Sigma is more commonly known on the campus as the Agronomy Club or "The Lords Boys."

Since the club was established in 1937, it has been active some years and rather inactive other years. During the past two years, however, it has become one of the largest and most active professional clubs in the School of Agriculture.

The club now boasts of twenty-two active members, most of whom are juniors and seniors majoring in Agronomy. (The members are: R. L.

Ashley, Jr., a senior from Honea Path; J. P. Bailes, a junior from Union; A. D. Boggs, a senior from Seneca; D. N. Chamblee, a junior from Anderson; P. D. Dukes, a senior from Reevesville; J. B. Elliot, a senior from Nichols; J. P. Flavin, a senior from Deland, Fla.; J. A. Graham, a senior from Scranton; C. R. Grainger, a senior from Nichols; G. R. Griffin, a junior from Leesville; M. D. Hawkins, a sophomore from Hartsville; J. L. Heyers, a junior from Butler, Pa.; J. E. Heirs, a senior from Ehrhardt; L. C. Lawson, a senior from Darlington; J. P. Livingston, a senior from Springfield.

Also P. L. McCall, Jr., a senior from Hartsville; T. L. Maxwell, a

junior from Hartsville; A. D. Owens, a junior from Greer; R. E. Poston, a junior from Hyman; C. F. Sease, a sophomore from Ehrhardt; R. L. Squires, a junior from Aynor; and H. B. Stoudemire, a senior from Elloree.)

The present officers of the club are Laurie C. Lawson, President; Harry B. Stoudemire, Vice-president; Philip D. Dukes, Secretary; and James E. Heirs, Treasurer. R. Grainger is chairman of the Refreshment committee, and R. E. Poston is Chairman of the Program committee.



## Work In 24,000 Acre Forest

# *Pre-Forestry at Clemson Gives Excellent Experience*

HARLON E. JOYE  
Pre-forestry

Although it doesn't have a four year course in forestry, Clemson College does offer its students a pre-forestry course which is exceptionally good because of the amount of practical experience which the student obtains. Clemson can well offer this practical experience, for it contains, in the immediate vicinity of the campus, approximately 24,000 acres of forest lands on which to put in practice the knowledge gained in the classroom.

Besides the fundamental courses in English, algebra, trigonometry, surveying, chemistry, economics, engineering drawing, physics, zoology, botany, and geology. Clemson also offers the individual taking pre-forestry two courses which pertain directly to forestry.

The first, a course in general forestry, is studied during the first semester of the sophomore year. This course gives the forestry student a preliminary glimpse of the subjects which he is to study during his junior and senior years of college. This study acquaints him with the fundamentals of identifying trees, of re-foresting both cleared and wooded area, of defending the forest against fire, insects, and fungus pests, of measuring the forest crop, of harvesting this crop, and of making forest products durable and adaptable. It also describes the forestry practices of the state, the communities, and the private owners. The course also thoroughly discusses the nation's forest policy.

The forestry student gains a great deal of practical experience in the weekly laboratory period, which consists primarily of field work. In this lab, the student learns to apply the fundamentals which he learned in the classroom in identifying trees by their

twigs in the winter and their leaves in the summer, in harvesting trees by the correct method, in obtaining the number of cubic feet of merchantable timber, in identifying fungi, and in performing many of the duties of a forester.

The second forestry course is dendrology, a study of the identification and distribution of trees. This course, taught during the second semester of the same year, is exceptionally good at Clemson, for this school, being located in the Centrals Hardwoods Region, just south of the Northern Forest Region, which runs parallel to the Appalachian Mountains, and just north of the Southern Forest Region,

---

### NOTE TO BIRD FANCIERS

The Carolina Bird Club is an incorporated association for the study and conservation of wildlife, particularly birds, in the Carolinas. In addition to publishing its quarterly magazine, "The Chat," the club also; (1) holds an annual spring business meeting and a fall dinner meeting (2) conducts club-wide trips to places of ornithological interest, (3) sponsors Christmas and spring bird censuses by local groups (4) encourages original research and publication (5) aids in the establishment of local clubs and sanctuaries, (6) takes an active interest in conservation legislation (7) co-operates with state and federal agencies, and (8) furnishes information and speakers to interested groups whenever possible.

Anyone interested in becoming a member of this club or organizing a club under the auspices of this organization should write Buren Whitener, 130 Woodburn Road, Raleigh, N. C.

has on or near its campus an infinite variety of tree species. Besides the large number of trees growing in their natural habitat, Clemson also has on its campus a great number of different ornamental trees. This great variety of trees gives the student an invaluable opportunity to study many different kinds of trees and thereby gain a broader knowledge of the distinguishing characteristics of the different species.

In addition to the practical experience which they obtain during the laboratory periods, some of the pre-forestry students have an opportunity to work for the college during the summer on a timber cruise.\* Since the students will have to do a great deal of timber cruising during the forestry summer camp, which they will attend between their junior and senior years at some other school, this work is a great aid to them. The work gives the students a chance to put into practice the knowledge gained in surveying, dendrology, and general forestry. They also learn to read aerial photography maps and to use the information obtained from these maps. Above all, the future foresters learn one important thing, that they must have a keen observation and must use this trait at all times. If they don't they find that they miss many important details.

The student has still another chance to gain experience, for each year a student is placed in charge of the forestry nursery. This individual learns a great deal about the germination of tree seeds, the care of tree seedlings, the transplanting of seedlings, and the delicateness of young seedlings.

When the student finishes his two years at Clemson, he has an excellent

—Continued on Page 26

THE AGRARIAN



# AGRARIAN PHILOSOPHY

By  
THE EDITORS



## WHAT CAN THE FARMER LOOK FOR IN 1953?

By WILLIAM F. STEWART, Jr., Co-Editor

Few people, other than farmers, really know the condition under which the average farmer operates. Since diversification has been started in the Southeast, these conditions have lessened somewhat. However, I still contend that the farmer must take more for granted than any other businessman. When the farmer seeds his crops, he has absolutely no assurance that he will be able to meet the debts that are incurred in producing a crop. Without fail, however the southern farmer will set to his task diligently with a trust in God and his fellow man.

The American people have now selected a new President to guide their fortunes for the next four years. This means a more or less complete changeover in Washington. The past election demonstrated that the American people want more voice in their future. For the most part the so-called machine-backed candidates were defeated, and this alone demonstrates that the farmer is going to command respect in the future.

During the year just closed, most wages and prices in industry advanced another notch. However, when the farmer gathered his products and carried them to the market, he found that the prices were generally lower. The cotton and tobacco farmers found that they had less money to put in their pockets; yet, their production costs were at an all time high. The hog farmer found that the hog-corn ration was such that he could only make expenses. The dairy and beef farmers had been slapped in the face by the summer drought. This has all added up to a rather bad year in general for farmers in the South. The farmer can not quit, however, because he is involved in a permanent business. His heart, soul, and most of his finances are tied to his business.

With the migration of many new industries from the New England States to the Southeast, the farmer finds himself confronted with serious labor problems. The farmer can not pay wages that are on the same scale with industries, but our nation and many foreign nations must be fed from the soils of our great nation. This is going to call

—Continued on Page 29

## THE NEW AGRARIAN

RONALD M. NORTH, Co-Editor

This is the new year when everyone is making a voluminous list of the traditional New Year's resolution, some to be followed in earnest, but the great majority to be quickly forgotten in the hustle and confusion of everyday life. In this particular issue of THE AGRARIAN we have printed an anonymous collection of what we think would be a worthwhile group of resolutions for any progressive farm family or individual to adopt and live up to in earnest every day of every year. It is not through the force of tradition, but out of necessity for the protection of THE AGRARIAN and all who are concerned with the publication that we have made a few commitments which are in effect new to us. We believe that a new system of management of THE AGRARIAN will have a more binding and businesslike nature than at any previous time in its history, and at the same time be of more value to Clemson and South Carolina.

In brief we would like to familiarize everyone with the new organizational set up of THE AGRARIAN. To begin with, it was revived at the beginning of this school year by a group of agricultural students and professors interested in the future of agriculture in the South and fully aware of its supreme importance in the welfare of the nation.

THE AGRARIAN was founded in 1938 by Mr. Ben E. Goodale, at present a Professor in the Dairy Department at Clemson, and Mr. Bo Williams, Head of the Sociology Department at the University of Georgia. The student founder was H. L. Beech, a vocational agricultural education major of the class of 1939. Since that time THE AGRARIAN has had many up and downs in the efforts of various individuals to keep its prestige as the oldest and most interesting technical publication on the campus. In view of the facts behind the apparently weak cycles in the magazine's life, it was concluded that the major necessity for a good magazine was that it have a permanent and fool-proof organization, especially in regard to its finances.

It was with this thought in mind that THE AGRARIAN was reactivated under the sponsorship of The Fraternity of Alpha Zeta. Alpha Zeta will be responsible for the premanency as well as the yearly operation of the magazine. When confronted with the problem, Alpha Zeta promptly

—Continued on Page 20



## THE NEW AGRARIAN—

Continued from Page 19—

realized the importance of the project and immediately brought the situation to the attention of the fraternity. The possibilities and responsibilities of this as a project were discussed freely and openly in the Alpha Zeta meeting and after much deliberation, questioning, arguing, and presentation of many solutions, a satisfactory agreement was reached.

The final solution, in its most important aspect, is that this magazine will be operated by the students in the School of Agriculture, and that all finances are to be handled by the students with the approval of the faculty advisors and the college business manager. Specifically, all business matters must have their sanction, and all transactions will be made in triplicate—one copy will go to the business manager's office, one to the treasurer's office, and the other to THE AGRARIAN files.

As far as the student organization is concerned the following procedures will be followed in selecting the staff. The staff will be headed by two co-editors who will work together to publish an acceptable magazine. One of these Co-editors will be a junior from the Fraternity of Alpha Zeta and the other will be a senior from the School of Agriculture. The junior co-editor will become responsible for the continuity from one year to the next by automatically becoming the student advisor during his senior year. In this way, at least one member of the staff will have some experience in working with this kind of publication.

THE AGRARIAN'S business manager will also be a member of The Fraternity of Alpha Zeta whereby the business responsibility shall be in the hands of the organization which is ultimately responsible for its success.

The faculty advisor for THE AGRARIAN will be the chairman of the Alpha Zeta advisory committee. The officers which have been mentioned above can hold office for only one year, with the exception of the faculty advisor.

The remainder of the staff is to be selected from the students in the School of Agriculture based upon their interest in the magazine and also in a particular phase of journalism. To do this, a mass meeting of the interested students will be held to determine their preferences and to consider the various problems which arise from time to time.

We believe that this system of organization for a publication of the nature of THE AGRARIAN will work successfully for the benefit of Clemson, the students, and the state of South Carolina as a whole. However there are certain loopholes which have possibly been overlooked, and THE AGRARIAN welcomes any suggestions which you feel would help to make it a better publication.

TWENTY

# INAUGURATION

*You Have Elected  
Us To Serve You*

~~~~~  
**WE PLEDGE  
A SQUARE DEAL**

At

# ESQUIRE

**SHOPS FOR MEN**

Clemson — Greenville

# BROWN FERTILIZER COMPANY

Blackville, South Carolina



Barnwell and Bamberg counties only  
completely equipped fertilizer manu-  
facturers.

THE AGRARIAN

## V. A. E'er WRITES FARM COLUMN FOR HOME TOWN NEWSPAPER

Joe O'Cain, Agrarian Associate  
Editor, Creates Behind the Barn;  
Writes Book

The smell of tractor smoke, the sweet scent from the farmer's wife's kitchen, and hints and suggestions on this and that on the country scene highlight the bi-monthly "Country Things, This and That" column in Orangeburg Times and Democrat. It's something new in the way of farm journalism, jacked-up behind the usual farm scenes. It all started from a search of "little country things" that needed to be brought into the light.

Joe O'Cain, the Agrarian's associate editor and junior vocational agricultural education major from Orangeburg, is the author of this column. He also writes another column for the paper and has a collection of original poems. Also unique in its plan is a book being written by O'Cain entitled "The Clemson Story." No information on this project has been released, however, the book will be the product of four years' work.

## WILLIS ELECTED NATIONAL SECRETARY

James K. Willis, former Clemson student, left school last month to become South Carolina's first national officer of the Future Farmers of America. The 20-year-old youth of McColl was elected national student secretary of the Future Farmers of America at the National FFA convention, held in Kansas City, Missouri.

Willis is not exactly a stranger to National F. F. A. conventions, the last one having been his fifth trip to Kansas City with the S. C. delegation. He attended his first national convention as a federation representative, and the past four years he has been a state representative. Year before last he was chairman of the national nominating committee.

He was a member of the program of work committee last year at the national convention and received his American Farmer degree at that

## FISH STOCK NOW AVAILABLE

Anyone interested in stocking his fish pond in the spring of 1953 should get his order in now. These orders are filled in chronological order so the early orders will get first consideration. Interested persons should contact their County Agent, Soil Conservation Man, or Local Game Warden for order blanks and information.

Stocks of Blue Gill Bream (Brim) and Large Mouth Bass are available.

Lespedeza bicolor should be ordered for late winter or early spring planting. Stocks of forest pine seedlings are available. See your County Agent or write the Forest Commission, Columbia, S. C. concerning seedlings.

"Truth crushed to earth shall rise again."

\* \*

"Be true to the best you know."

## CLEMSON ATA'er ATTENDS MEET IN KANSAS CITY

The Kappa chapter of Alpha Tau Alpha sent Ronald M. North as its delegate to the national conclave which was held in Kansas City, Missouri in October. The trip to Kansas City was really an enjoyable as well as an educational experience. Each chapter gave an annual progress report at the second session. This seemed to be the most important aspect of the entire conclave. As each chapter presented its report the other chapters had a chance to learn a first hand account of the activities and ideas which prevail in the other colleges throughout the nation.

In addition to the activities pertinent to ATA, the delegates attended some of the National FFA activities such as public speaking, band, chorus, and others. Ronald served on the program of work committee for the national program of work.

## STATE GAME WARDEN CLINIC AT CLEMSON

One of the first moves of the new South Carolina Wildlife Resources Commission, whose aim is to improve wildlife conditions in the state, was the holding of a clinic for state game wardens.

This five-day clinic, held at Clemson College, began August 4. This warden group learned from many real authorities on the important subjects presented at the clinic, just what the commission will expect of them.

A written examination was required after these men had met many periods of instruction. This examination determined the ability of each man to fill his respective job.

One of the most outstanding projects which developed as a result of the clinic was the adoption of a more uniform and standard type of game warden service. Discussed at the clinic was the need of the same type of law enforcement the state over, the same approach to the job, the same understanding of what the law means and the same version of what the commission wants.



# GUILTY or NOT GUILTY

By JIMMY YOUNG

## 125,000 ACRES BURN ANNUALLY

You are guilty! Yes, you and I are guilty of burning over some 125,000 acres yearly of valuable forest in South Carolina alone. This unprofitable carelessness has resulted with a great loss to the owners of these bountiful forests, a loss in economy to our state as well as to our country, losses in organic material of soils, losses in wildlife and recreation, and even loss of human lives and domestic animals.

With these facts in mind, it is somewhat appalling to think that after twenty-five years of fire prevention education activities in South Carolina and with the increasing demand for lumber and other products derived from the forest we can still expect more than 5,000 forest fires will start this year. Already there has been an unofficial report of nearly 5,000 acres of burned forests in South Carolina. What are we going to do about it?

The combined efforts of all agencies in the field of conservation and natural resources are needed to greatly reduce the occurrence of forest fires caused by carelessness. You and I are responsible for reducing the occurrence of these unnecessary fires. Such efforts on our part are basic for an intensified program of forest management.

Many of us have never been exposed to the surprisingly amazing facts of what happens to our wildlife as a result of forest fires. We do not know, and many of us are unconcerned and do not care to know, the extent to which forest fires kill and injure wildlife.

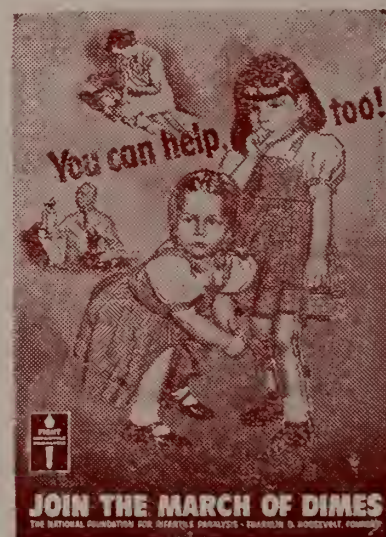
Most of our forest fires occur in the winter and early spring when the grasses and shrubs are dead, and the forests are dry. This is fortunate but even so the fires take a great toll of our adult wildlife, who must reproduce their species.

Many species of game, both large and small, are killed outright or badly injured in woods fires. The helpless animals become frightened and confused by these ugly, destructive flames, and dash through the raging fires only to be burned to death.

The members of the State Commission of Forestry are concerned with assistance to landowners of the state in the protection, development and management of their forest lands, and in the harvesting and utilization of forest products. Foresters have readily recognized the potentialities of co-ordinating a program to benefit our rapidly decreasing number of game in connection with forest land management. A co-ordinated program of furnishing food and cover for game in connection with forest land management is very essential to the conservation of wildlife.

It is a recognized fact that well managed forest cover approaches the ideal in soil and water conservation. The proper protection and wise management of our woodlands should be of vital concern to us if we are to

replace the fertility of our once virgin soil and reproduce our forest which previously supplied man with an abundance of wildlife, natural resources, and recreation. We fortunate Americans can and must restore, protect, and maintain our forest and woodlands as well as our wildlife, with our sincere, maximum ability!



## TRIED and TRUE

Broadleaved Evergreens — Fruits  
Ornamentals of Every Description



P. O. Box 910 - Augusta, Ga.

*The Agrarian Presents:*

## DR. WHITNEY—

Continued from Page 6—

bad, no vacancies were to be had at Clemson, or anywhere nearby. The pre-fabs were being built but were not yet finished. Dr. Whitney took one. At least he had four walls and a roof, even if it did not have plumbing and running water. At least this was better than an army tent. Before long, a house was provided by the college. When the Whitneys moved in with their two children and pets it soon became a home.

Besides teaching freshman botany and senior plant physiology, Dr. Whitney has been connected with research at Clemson. For two summers he and Mr. Salley of the Chemistry Department have worked with *Eremothecium ashbyii*, the fungus organism which produces riboflavin or vitamin B. If this organism could be produced in abundance and cheaply, it would mean a great saving to feed companies. Purina Feeds alone buy four million dollars worth of riboflavin per year. Dr. Whitney and Mr. Salley estimate the cost of their method at around 4 dollars per pound instead of 20 dollars per pound as it now is. Their research dealt with finding a strain of this organism which would produce riboflavin in greater quantities and then finding its nutritional requirement for growth.

There was also the problem of isolating the riboflavin product from the culture medium. This was done too, and they came out with riboflavin, unconcentrated, but sufficient for hog, dog, and poultry feed.

The honorary fraternities and botanical societies to which Dr. Whitney belongs are: Alpha Zeta, S. C. Academy of Science, Sigma Xi, Phi Kappa Phi, American Association for Advancement of Science, Botanical Society of America, and the American Society of Plant Physiologists.

At home Dr. Whitney enjoyed his garden until a road was built right through the middle of it. Now when he comes home on holidays from Oak Ridge, he does not have time for a garden anyway, but he does enjoy being with Mrs. Whitney, the three little boys, and a big collie dog.

So this is the interesting life of John Barry Whitney, Professor of Botany and Plant Physiology at Clemson College.

## ASAE—

Continued from Page 14—

the club, with eighteen joining during the fall semester. L. F. Denaro of Moncks Corner, S. C., is president of the local branch. Other officers are S. A. Nunnery, Vice-president; C. F. Abercrombie, Secretary and Treasurer; and C. J. Walters, Reporter. Prof. Parker Young is the faculty advisor this year.

## Club News (Con't.)—

### FFA AND ATA HAVE JOINT MEETING

The F. F. A. and A. T. A. held a joint meeting on Thursday night, November 29, 1952 for the purpose of hearing Mr. R. E. Naugher, federal agent for Vocational Agricultural Education. Mr. Naugher started out as an agricultural teacher in Loris, S. C. and a few years later, he was appointed District Superintendent of the Pee Dee Area. Due to his outstanding work in this field, he became recognized by high state officials and was appointed to serve in the Office of Education in Washington, D. C.

This visit by Mr. Naugher marked the first time for a federal agent to visit the Agricultural Education Department in 16 years. He also visited some of the Agricultural Education classes and was introduced to some of the work carried out in practice teaching schools in the surrounding community.

### NEW MEMBERS IN FFA

New members are initiated into the club each semester as greenhands. Prospective members are required to enroll in Vocational Agricultural Education. Informal initiations are carried on for a week, and a formal initiation is held at one of the regular meetings for all the prospective members. After the formal initiation, the new members become active for the duration of their college career.

Sixteen new members were initiated this semester. They were C. C. Lucas, R. L. Kelly, C. D. McLaurin, R. M. Cox, F. H. Garner, C. L. Mulwee, D. B. Lewis, N. A. Myers, R. D. Burns, F. R. Meech, E. M. Holden, W. W. Weldon, G. W. Sawyer, C. T. Odom, R. C. Brown, and T. M. McMillan.

Old Farmer Brown was being congratulated on the fine crops that he made. "Yes, but it's mighty trying on the soil," he said.

\* \*

Be wiser than other people if you can, but do not tell them so.

—Earl Chesterfield

TWENTY-THREE

*What it takes*  
**NACO's**  
*got!*

if you know  
SEABIRD  
you know  
**NACO**

**NACO**

**FERTILIZERS**  
that build  
better crops

**INSECTICIDES**  
that assure  
crop protection

CHARLESTON, S. C.  
SPARTANBURG, S. C.



## Research In Wildlife

The preliminary work for the project now under way ended June 30, 1952. This work had been going on for 22 months. During this time 10,000 acres of college land was posted against hunting; cover maps were made; 20 miles of woods roads were opened; six bridges were built to accommodate heavy land working equipment; 130 quarter acre Lespedeza bicolor plots were installed adjacent to woodland or brush cover; and 100 acres of permanent or semi-permanent food patches, ranging from  $\frac{1}{2}$  to 7 acres were established.

The development was designed primarily to benefit turkey and deer which are to be restocked in this area. Quail, Rabbit, Squirrel, Raccoon, Mourning Doves, and other resident or migratory wild life have benefited by the food patches. From records kept on wildlife, there has been a noticeable increase in Quail, Rabbits, Waterfowl, and particularly Squirrel.

However, much additional food development is needed to increase the wildlife production on the entire 30,000 acres of the Clemson Land-Use Area.

All of this preliminary work leads up to and integrates with the project now in force. The investigation to be made under this project include:

1. Pasture land management for wildlife.
2. Determination of the value of Lespedeza bicolor in wildlife management.
3. Study of Mourning Dove mortality and the effects of Trichomoniasis on these birds.
4. Management of timberland for wildlife.

A study area of 2,200 acres of Clemson Land-Use pastureland, under the supervision of the college Animal Husbandry Dept., has been set up for the investigation on the pastureland management for wild-

life. An area of about 3,000 acres of pastureland under the supervision of the Dairy Department of the college will serve as a control or check area in this investigation.

**The study area of 2,200 acres has been split into six sections, separated by natural land features such as woodlands or streams and are posted. Standard quarter-acre woodland-pasture border food plots are distributed in replication and**

### FISH & GAME

Effective July 1, 1952, the South Carolina Fish and Game Department became the South Carolina Wildlife Resources Commission. This commission is directed by a seven man board with one commission from each Congressional District and one at large. These men are as follows: George Warren, chairman of Hampton; Edward B. Cantey of Columbia; F. Brandon Smith, Jr., of Anderson; J. Drayton Hopkins of Simpsonville; R. A. Oliphant of Chester; D. T. McKeithan of Darlington; and Edward W. Johnson of Spartanburg. The first six board men listed represent the first, second, third, fourth, fifth, and sixth Congressional Districts of South Carolina; and Mr. Johnson works at large.

equi-distant on each of these sections at the ratio of one plot to each twenty five acres of fenced pastureland. Six variations in planting of these plots are being tested.

Lespedeza bicolor, Rosa multiflora, and Lespedeza Sericea are being used. The primary job of the investigation will be to determine the influence of these plots on resident wildlife with particular emphasis on

quail and rabbits. Accurate seasonal measurements of the numbers of wildlife and patterns of distribution over a number of years should reveal which techniques are most useful in attempting to maintain, restore or build up wildlife populations in pasture situations. This investigation on pastureland management for wildlife should also aid in determination of the value of Lespedeza bicolor in wildlife management.

Work on the other three phases of this project has now gone through a reconnaissance stage. It is expected that as soon as graduate student assistants can be assigned to these other phases, this entire project will move ahead more intensively. Already, four Mourning Dove routes, correlated with a southeastern states study of the doves, have been set up and run for one or two seasons. A Dove Sanctuary of 650 acres has been established on the Clemson College land and several food plots totaling about 18 acres have been established with particular emphasis on attracting mourning doves. At the present time there are now on the Clemson College lands, under posted protection, three mourning dove winter-concentration areas which will be useful in banding and mortality studies.

This project is unique in that it calls for the use of four graduate student assistants who will pursue graduate studies at Clemson College under the supervision of the Entomology - Zoology Department., and work on the four investigational phases of the project. These students are expected to spend two years in graduate studies and investigational work. In this, Clemson College in cooperation with the State Department of Wildlife Resources, expects to train a nucleus of men for the wildlife management program in the state.

## Editorial—

# RELIGIOUS EMPHASIS WEEK

By JOE O'CAIN, Associate Editor

Religious Emphasis Week at Clemson brings a sort of closeness and unity to all Clemsonians. It is a week set aside to bring about and to increase the real meaning of fellowship, brotherhood, and religion. In the past, Religious Emphasis Week has meant much to Clemson. Outstanding speakers, forum leaders, and student church workers have made Clemson's Religious Emphasis Week a very successful one.

Reverend R. Wright Spears, president of Columbia College, will be the student convocation speaker at Religious Emphasis Week this year, February 10-13. Again this year, seventeen discussion leaders will visit the various R. O. T. C. companies; special Evening Watch and Morning Watch programs will be held.

The convocation speaker will deliver his messages at 11-12 o'clock Tuesday through Friday, February 10-13 in the College Chapel. Attendance is purely voluntary.

Planning months in advance for the week's religious program are the following executive committee heads to whom much credit is due: Professor Ben Goodale, faculty chairman, Thornwell Dunlap, student chairman, Mr. G. E. Metz, vice chairman, and Mr. J. R. Cooper, executive secretary.

Come to church February 10-13.

### OUR SPECIAL THANKS:

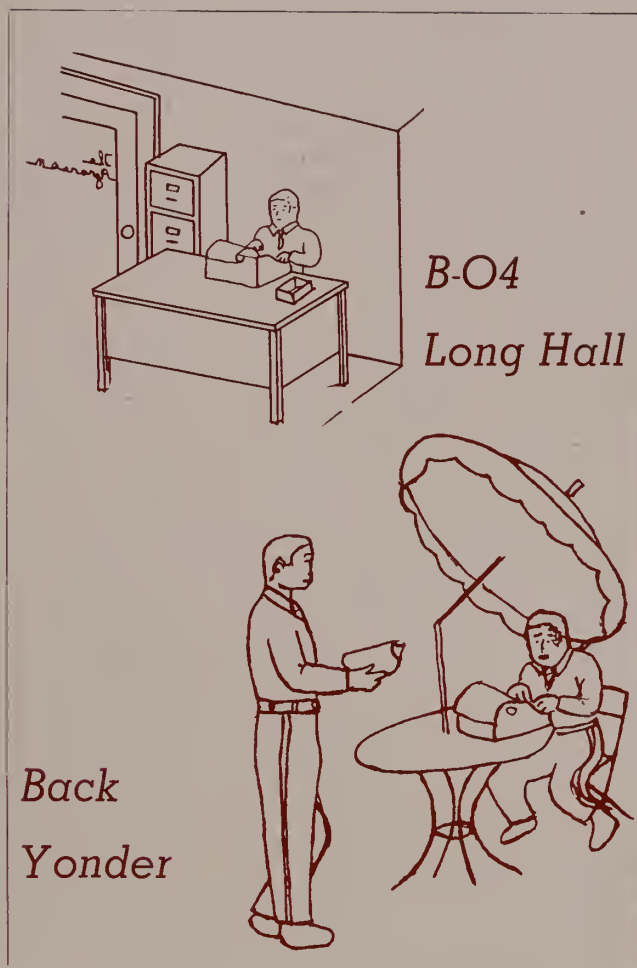
THE AGRARIAN owes its life and future success plus a million thanks to T. L. Senn for his efforts in procuring our new office and to Dean H. P. Cooper for granting us the use of a room as an office.

## IRAN DELEGATE STUDIES

Bagher Kia, a Chief of State Representative of Iran's seven year plan organization, was recently on the Clemson Campus studying the marketing and ginning of cotton. Mr. Kia made a two week tour of the cotton industries and facilities in this area in addition to discussing his problems and plans with the experts in the college and in the extension service.

Mr. Kia is from Tehran, the capital city of Iran. His major task in the United States, as a representative of the cotton processing companies

JANUARY 1953



### FROM THE OPEN SKIES TO THE SHELTER OF AN OFFICE

THE AGRARIAN has never been fortunate enough to boast of having an office before. We feel that this work room is a great advancement toward the publication of greater Agrarians in the future.

THE AGRARIAN office is located in the basement of Long Hall, B04. It is in this room that most of our work is accomplished.

of Iran and the Government, is to learn the standard American method of ginning, grading, and classifying raw cotton. After his four months tour in the United States, mainly through the South, he will return to Iran to help develop their cotton processing industries.

Mr. Kia stated that he was very favorably impressed by the efficiency of industry and agriculture in the U. S. In addition, he stated that the response and cooperation given him at Clemson was very satisfactory.

TWENTY-FIVE



## WINTER CARE OF LIVESTOCK

Continued from Page 10—

or hair and skin, is a very troublesome thing to animals. Burrowing into the skin to lay eggs and constantly piercing the skin to withdraw lymph, mites cause irritation to the animal. The best control is to apply one-half pound of chlorodane, 40 percent wettable, to 10 gallons of water, 1.63 pounds BHC, 12 percent gamma isomer, to 10 gallons of water or 1 pound of 25 percent lindane and 25 gallons of water. If cattle have wrinkled folds of skin about the neck you can be fully sure that mites are there.

Hogs are also bothered by mange mites, not only in the winter but throughout the year, and the intense itching causes lowered gains. Areas first affected are around the eyes, ear, and nose, and then the neck, shoulders and back become covered with these mites burrowing into the skin and often hiding under concealment of a brown scurf. Hair falls out and a thick wrinkled skin appears. Scabs may form which, when rubbed off, leave the skin red or yellowish with blood and serum. Control and

quick relief is available with a dip or spray of 1 pound BHC, 12 percent gamma isomer, per 10 gallons of water. Submerge the whole hog when using the dip, or if a spray is used the pressure should be between 50 and 250 pounds per square inch, using one-half to one gallon per animal. Do not use BHC within 30 days of selling the hog because the fat absorbs BHC and would impair the quality of the bacon and the ham. Cattle grubs are important too! USDA estimates the damage done to meat and hides at no less than 50 million dollars, but besides that, animals are injured by trying to escape from the dreaded heel flies which are responsible for the cattle grubs. For 60 days during the winter the grubs are in the backs of cattle. In South Carolina this period is from January to March. During that time the control should be administered, for soon after that the grubs drop to the ground and grow into the dreaded heel flies. The heel fly's only purpose is to lay eggs. She has no mouth with which she can feed, she quickly dies. The eggs she lays hatch into grubs which burrow directly into the skin and muscles, or if licked off by the animal they burrow through the intestines

and slowly travel through the muscle. Finally they emerge during the winter in the back of the victim, where the cycle starts all over again. The grubs may be squeezed from the backs of cattle, but if there are very many, a better practice is to use derris dust or 5 percent rotenone dust, rubbing it well into the backs so that it gets into the breathing pores of the grubs. BHC spray is also good. The recommended mixture is 6 1-4 pounds of 6 percent gamma isomer BHC to 100 gallons of water. Nozzle pressure should be at least 60 pounds per square inch. These grubs also infect deer, and birds, but do not infect horses and hogs. Since heel flies do not travel over a mile, neighboring livestock owners can get together and prevent infection. All new cattle especially should be checked at the time the cattle grubs appear in the section of the country whence the new cattle came.

Feeding animals properly, treating them kindly, and keeping them free from pests and disease will result in a contented, happy, and healthy herd. Dividends will be paid in the form of higher milk production, more beef and pork, and better calf or pig crops.

## PRE-FORESTRY

Continued from Pages 18—

foundation on which he can build with the technical knowledge which he will receive at the institution where he finishes his education. An individual who has done average, or above average, work at Clemson will have no trouble obtaining acceptance to any college in the United States offering forestry training. Because of this school's exceptional facilities for forestry education, Clemson students who are finishing, or have already finished, their work at the University of Michigan, the University of Georgia, North Carolina State, the University of Florida, or Duke Graduate School are better prepared for the more technical aspects of forestry than the students who received their fundamental training at these colleges.

The man who has finished the pre-forestry course at this institution carries with him, when he leaves, a

vast reservoir of knowledge and practical experience, a reservoir which he will find to be invaluable to him throughout the rest of his time in school and even afterward, when he is working in his chosen profession.

\*A timber cruise is an inventory of the forest. A complete article on this type of work appeared in the November, 1950, issue of the *Agrarian* in an article entitled "Timber Cruising," written by R. M. Farmer.

## AGRONOMY STUDENTS

Continued from Page 16—

ther. There the students from the warm south were snowbound and had to spend the night. The next morning the roads were cleared of the record 22 inch snowfall, and the students were able to return to Clemson. The students indicated that they enjoyed the trip very much and that they learned a great deal from the experiences.

## SOIL CONDITIONERS

Continued from Page 13—

ment of the soil structure and an increase in the water holding capacity in the soils treated with the synthetic soil conditioners.

The synthetic soil conditioners may have a permanent place in modern agriculture, but much research should and must be done on these products before they are released to the farmer in large quantities. Never forget that soil is the greatest resource in the world, and every measure should be taken to conserve it to the greatest extent.

"To have useful work to do and take joy in it lifts the soul and lightens the load and makes us collaborators with God."

\* \*

"When de preacher comes, de chickens cry."

# Horticulture—

Continued from Page 12—

oil. Years ago this plant was grown as a source of seed for wild and domestic or cage birds. You may know it as Benne. Should you know the plant by that name, you also know that it is used in candy and cookies. Not only that, you probably consume the oil of the seed everyday in many things you eat. The commercial products, oleomargarine and shortening may someday contain largely sesame oil. These plants are native of India, China, Mexico and South America, where the latter two have devoted large acreages to sesame culture. Much progress has been made in this field. The original sesame plants were dehiscent (the seed pods would open, expelling the seed). This meant that there could be only a limited yield since most of the seed would fall to the ground, rendering itself unusable. Research has brought about a new type, indehiscent, which can be harvested by a combine. However, as in any scientific endeavor, there are still problems to overcome; primarily, that of breeding into the sesame plant, resistance to bacteria and alternaria leaf spot.

Speaking of problems, did you know that South Carolina has lost undetermined sums of money because of COLOR. Yes, color in the Cayenne Pepper. The pod of the peppers has a tendency to lose its red color after it is picked and dried. The manufacturers refused to buy the pepper because of its abnormal brown color; so South Carolina research men went to work on the project. After eight long years, they discovered a substance which would retain the red color to various degrees. The use of antioxidants, the same material used in lard and shortening to prevent rancidity, have shown great possibilities. Further research and observation brought about a revival of the Cayenne Pepper industry in South Carolina. Incidentally, application for patent has been made with the United States Patent Office.

This is really "Hot" news! Clem-

son workers have developed a pepper too hot to pick. Wherever this pepper is grown, there is always trouble getting laborers to pick it. Do you like hot pepper? Well, here's one straight from the fire!

Recently, a happy mother wrote a letter of appreciation to the horticultural department here at Clemson praising its members for the remarkable work accomplished with canned peaches. She stated that her child has a "sparrow-like" appetite for everything except Clemson peaches. He even asks for seconds when CLEMSON PEACHES are on the table. Although the horticultural department of Clemson does not process its peaches commercially, the product is known throughout the United States. The canned peaches are revolutionary in flavor, color, and general appearance, and this was brought about as a result of class, experimental, and research work.

There are numerous other projects of this nature being worked on at Clemson as well as other colleges and experiment stations.

Some of these include: Perilla, a genus of Asiatic mints, the seed of which provides an oil used in paints and varnishes for good drying qualities.

Clemson Spineless Okra is a popular vegetable crop in many sections of our country because of its pe-

culiar quality of spinelessness.

Pimento peppers developed at Clemson are being checked by the Kraft Cheese Company for adaptability in the process of making cheese spreads.

Aromatic tobacco, an agronomic crop is having its aromatic qualities tested and improved by the horticulturists.

Clemson's peach pitter removes the seed of approximately forty bushels of peaches per hour. Also the continuous cooker now cooks in five minutes what would ordinarily require twenty-five minutes.

These are only a few of the steps in the progress of horticultural science. It is easy to see why horticulture is such a necessity in our modern age. We either use or enjoy its products in our occupation or ravishly consume them in our everyday life.

If plants have been cultivated 10,000 to 12,000 years, then it must be true that horticulture is the father of all plant sciences.

The author has endeavored to give the reader an understandable and practical knowledge of horticulture as it applies to everyone, and his fervent hope is that one and all will realize its important role in our search for beauty, health, and a long happy life.

## BEAUTIFUL

# Holly Hill Inn

Greenville Hi-Way ½ Mile East of Clemson

Delicious  
Home Made  
Pies

Steaks  
And  
Chops

— Nothing Finer In Carolina —





**Prof Dunavan**

## DUNAVAN REPRESENTS STATE AT CONVENTION

A recent event of interest to beekeepers of South Carolina was the annual meeting of the Southern States Beekeeping Federation in Baton Rouge, Louisiana on December 1st and 2nd.

Professor David Dunavan of the Entomology Department was the only representative from South Carolina present. He states that this organization is the oldest organization representing primarily southern beekeeping interests, and is, in fact, one of the oldest beekeeping organizations in the entire United States. The American Bee Breeders' Association which met with the older organization is of more recent origin though it, too has its membership mainly in the South.

The combined meeting was one of the largest held in recent years in the South. Honey producers, package bee producers and queen bee producers as well as representatives of state and federal research and extension organizations were present. In all, nine states and the District of Columbia as well.

Many problems of national scope as well as those of concern to southern beekeeping had places on the program and were discussed at length. Some of these were: honey

sales promotion, the PMA honey price support program, and problems relating to adequate pollination of agricultural crops by bees. A matter of special concern to a large number of southern bee producers and discussed at length, was the increasingly high express rates on the many tons of live honey bees moved each spring from southern bee yards to northern beekeepers for honey production and crop pollination.

Clemson College and South Carolina beekeeping attained recognition in the election of Professor Dunavan as president of the organization for the coming year. Other officers are Leslie Lewis of Havana, Florida, vice-president and Mr. W. E. Blasingame of the Georgia Department of Entomology, Atlanta, secretary-treasurer. The next annual meeting will likely be held in Georgia or South Carolina. The last time the organization met in this section of the South was in 1948 when it was held in Greenville, South Carolina.

Officers of the American Bee Breeders' Association which will like-

ly meet with the Federation are: Leslie Little, Shelbyville, Tennessee, president; J. W. Newton, Baton Rouge, Louisiana, vice-president; and R. S. Weaver, Jr., Navasota, Texas, secretary-treasurer.

## THE PEACH CENTER

Spartanburg county has more peach trees than any other county in the U. S.

### Counties:

|              |                      |
|--------------|----------------------|
| Spartanburg, | 1950—2,545,671 trees |
|              | 1945—2,021,049 trees |
| Stanislaus   | 1950—1,979,404 trees |
| Calif.       | 1945—1,904,544 trees |
| Barrien      | 1950—1,854,888 trees |
| Mich.        | 1945—2,332,605 trees |
| Sutter       | 1950—1,568,388 trees |
| Calif.       | 1945—1,661,956 trees |

The first name of the agricultural publication of Clemson was called "The Clemson Agricultural Journal."

\* \*

The first Agrarian was published in December 1938.

## WOOD'S SEEDS

Headquarters for  
FLOWER, FIELD,  
GARDEN SEEDS,  
HYBRID CORN  
Bred by the  
Largest Southern  
Seed House



## T.W. WOOD & SONS

RICHMOND, VA.  
SEEDSMEN SINCE 1879

## WHAT CAN THE FARMER LOOK FOR IN 1953

Continued from Page 19—

for more sacrifices, more diversification, and better farming methods by the American farmer.

The young farmer is faced with the problem of being able to establish his farming operations so that a tour of duty in the service will not wreck his future. More than one herd of cattle has had to be sold because there was no one to carry on the operation after the young man received his orders.

However, the American farmer must not become discouraged. There are those who look down on the "tiller of the soil," but a thinking and reasoning man can hardly have this idea. Farmers do not expect to make great fortunes, but their reward comes in the performance of their task.

In conclusion we might say that the farm program can not be allowed to remain at a standstill. It must get out of the rut and move forward to bigger and better things. The farm program must produce more food and fiber from fewer cultivated areas with less labor. This is going to require early planning and financing, care-

ful preparation of the soil, and well trained and diligent workmen to carry the plans to completion.

In 1953, may the American farmer not put all of his eggs in one basket, but strive to fill all baskets to the brim and thus receive greater returns than he has ever experienced. Farming is a good business so let's strive to make it a bigger and better business in 1953.

---

First Farmer: "Which is correct: A hen is sittin' or hen is settin'?"

Second Farmer: "I don't know, and I don't care. All I bother about is when she cackles—is she laying or is she lying?"

\* \*

Here a problem that  
Gives us the jitters;  
How can rabbits find  
Enough baby sitters?

It was their first date and they were both thinking about the same thing.

She called it mental telepathy. He called it beginners luck.

# Etiwan Fertilizer Company

CHARLESTON, SOUTH CAROLINA

*Independent - Prompt - Reliable*



—Manufacturers Of—

**DEPENDABLE FERTILIZERS SINCE 1868**



# GARDENING IN THE SOUTH

## CARING FOR POINSETTIAS

Potted poinsettias may be kept in any warm place and watered very sparingly during their rest period after blooming. If the leaves fall off during this period, no harm is done. It is not usually necessary to repot them as long as the soil in which they are planted is not too heavy and drains well. They will do better in an alkaline rather than in acid soil. The old stalk may be cut back within two buds of the soil line. To make cuttings of the stalks that are removed, cut off each section below the bottom bud about half an inch above the top bud. Put the cuttings into sand or light, well drained soil until rooted. If the plants are grown in the open and there is danger of freezing, they may be cut back almost to the ground level and then covered with straw. In the spring after they begin to grow, they can be pruned or pinched back until about the middle of August. Do not prune after this date because the new growth may not mature enough to produce good flowers for Christmas. They will require little plant food until the flower bracts begin to show, aside from a teaspoonful of Vigoro worked into the soil when growth begins, which is beneficial. When the flowers begin to form, give them another teaspoon of plant food to each 10-inch pot or, if growing outside, a half a cup worked into the soil.

## GARDENING TIPS

### By THE MASTER GARDENER

In the lower South, plant Easter lilies, day lilies and even gladiolus along the gulf coast and in Florida. Move nursery stock while the plants are still dormant.

\* \* \*

Remember if you use salt for sidewalk snow and ice, that the salt solution is not only damaging to the lawn grass, but will also destroy soil structure by causing puddling or running together.

THIRTY

# HUNGRY PLANTS TELL THEIR STORY!

By The MASTER GARDENER

Garden plants, even as you and I need a balanced diet. Plants are living things which must have certain nutrient elements for normal growth and development. Underfed plants, like starving people tend to become puny, sick and ill formed. They display their symptoms for everyone to see. Plants need many elements to grow well. Carbon, hydrogen, nitrogen, and oxygen comprise about 95% of their dry weight of the plant. Practically all of the carbon comes from the carbon dioxide in the air while hydrogen and much of the oxygen comes from water taken in by the roots. The rest of the oxygen is obtained from the air. Although air also contains 78% nitrogen, no plants, with the exception of legumes, are able to use this source, and must depend upon the supply in the soil.

The other necessary elements, calcium, magnesium, sulphur, iron, boron, manganese, copper, zinc and molybdenum, plus a host of other elements not known to be essential,

make up the remaining 5% of the plant's weight. These elements must come either from the soil or from the plant foods supplied by man. When one or more of them is lacking, the plants will, in their characteristic way, show hunger signs. When plants are literally "starving to death" the symptoms are fairly easy to recognize but when they are merely "hungry," diagnosing the trouble is more difficult even though yields may be reduced or blooms become inferior in size and color.

Why do we hear so much about hungry plants today when so little was said about them a few years ago? In the first place, our soils are becoming older and much of the plant food has been removed by cropping and erosion. Infertile subsoil covers many a newly graded lot in newly built-up areas. Altogether, this presents an area of nutrient deficient soil. So be prepared for hunger signs, and beat them to the punch with regular plant food applications to your lawn and garden.

Now that the days are growing longer and house plants are growing more rapidly, feed them every two weeks, with new watersoluble Instant Vigoro. Just dissolve two level tablespoons per gallon of water and apply as you would a regular watering.

\* \* \*

In California, get your fuchsias ready for the coming season by pruning them after all danger of frost is over. Potted specimens should be fed with three or four Vigoro tablets depending upon the size of the pot.

### Agriculture

"There seem to be but three ways for a nation to acquire wealth. The first is by war, as the Romans did, in plunging their conquered neighbors. This is robbery. The second is by commerce, which is generally cheating. The third by agriculture, the only honest way, wherein man receives a real increase of the continual miracle, wrought by the hand as God in favor, as a reward for his innocent life and his virtuous industry."

—Benjamin Franklin

## FACTS AND FIGURES

Today you can see the greatest concentration of peach trees in the world around Spartanburg. In 1923 South Carolina shipped 16 carloads of peaches, but in 1951 the shipment was increased to 11,000 cars. Since 1946 South Carolina rail shipment of peaches has led all other states by a substantial margin, and has reached a peak shipment of 769 cars in one day. It takes 40,000 people to get Spartanburg peaches ready to roll and some of them come from 100 miles away. All of these instances again indicate that the Spartanburg Section dominates the peach situation during its peak movement.

\* \*

'Masa' is a staple food in Mexico made by mixing corn with slaked lime and after steeping for several hours in hot water, it is drained, washed and ground into a dough.

THE AGRARIAN

## Organize FFA Groups Right; Chapters Serve Community

By JOE O'CAIN

"Learning to do, doing to learn, earning to live, living to serve." That's the Future Farmer's of America motto—and those few phrases mean a lot when you come down to brass tacks!

The F. F. A. began as a national organization in 1928 and was founded by Henry Groseclose. Since that time F. F. A. chapters have sprouted up all over the country and are growing into real farm businesses. Those young farmer organizations assist new farmers to become established on the farm. It helps them to work and plan together; it gives the opportunity to render community service; it promotes rural leadership.

### PURPOSE OF F. F. A.

With many F. F. A. chapters throughout the country trying to organize their program of work for the year, probably a general review of the purposes, organization, and various ideas along the future farmer line would be of benefit to many.

First of all, the chief purpose of the organization is to develop competent aggressive rural and agricultural leadership and to create a love of country life.

### FOUNDATION BLOCKS

The F. F. A. chapter is a service organization which constantly learns by doing. The foundation blocks of the chapter are the same used in any service organization, only more widely expanded. Beginning from the bottom, leadership, character building, sportsmanship, cooperation, service, and thrift, joined with scholarship, steadfastness improved agriculture and citizenship.

### ORGANIZATION

Officers consisting of the president, vice president, secretary, treasurer, reporter, advisor and sentinel are elected as soon as all members become familiar with the purposes and program of work. With the assistance of the advisor, nine standing committees are then organized. The usual committees are supervised farming, cooperation, community service, leadership, earning and saving, conduct-the-meeting, scholarship, recreation, and general.

The Secretary's job is one of the most important. He's expected to keep records of meetings, activities, provide statements of businesses, furnish chairman with lists of committees and its members, take care of all correspondence, and to be familiar with the state constitution.

## The Journal Press

- =====
- \* OFFICE FORMS
- \* BOOKS
- \* NEWSPAPERS
- =====

Estimates given without obligation.

Phone 666 — Seneca, S. C.

## Bees Distribute Gold In Orchard

One optimistic entomologist has said that a thriving beekeeping industry keeps our agricultural nation from suffering. He's right!

In many cases the bee governs the production of fruit. True, many fruit trees are self-pollinated by bees, but in the case of self-sterile, they must consequently be cross-pollinated by bees, the wind, or by hand labor. You can imagine how expensive hand pollination would be. Such self-sterile fruit trees, as in the case of the apple varieties, must be cross-pollinated in order to set fruit. Here's where the ever working little bee comes into the picture. Since the nature of apple pollen is quite heavy and sticky, the presence of the honey bee in the apple orchard is a must in successful fruit production.

One case in which the honey bee filled the apple producers' pockets full of gold is illustrated as follows: An orchard owner on Lake Ontario had 50 acres of apple trees well interplanted with pollinated varieties, but very little fruit was set each year. An investigation of this poor production showed that only eight individual insects were found in eleven days of collecting, indicating the lack of pollinators. The following year, sixty colonies of bees were introduced into the orchard. Production increased from 750 to 35,000 bushels!

Clovers, alfalfas, vetches, and many other pasture crops will show the same results when extensive honey bee pollination is used.



# —TALL CORN—

And then there was the student who wrote: "Virgin wool comes from the sheep who can run the fastest."

\* \*

## RAMMER JAMMER

A tobacco farmer was asked why he refused to allow his daughter to enroll in college.

"Wal," he replied, "I started gittin' mad when they told her to go to the Registrar's Office to matriculate, but by cracky, I shore put my foot down when they said that she had to use the same curriculum as the men!"

\* \*

Once there was a traveling salesman. He was new to the job—but he had heard a lot of jokes about farmers' daughters. So when it got late, instead of stopping in town, he went to the nearest farmhouse. The people were very hospitable; they invited him to spend the night. They had a Daughter! And as usual there were only two bedrooms, one for the couple; and the salesman was told to sleep in the daughter's room.

About nine o'clock they all went to bed for a good night's rest. The next morning, the farmer got up, his wife got up, the salesman got up, and the daughter got home from college.

\* \*

"I had to run into a fence to keep from hitting a cow standing in the middle of the road," the motorist complained to the judge. "Was it a Jersey cow?" the judge asked. "I don't know. I didn't see the license plates."

\* \*

Big drop of ink: "Where has your big brother been lately.

Little drop of ink: "Haven't you heard? He's in the pen, finishing a sentence."

\* \*

A little city boy who had been to the country, was describing to another boy friend the big pig he had seen. "It was in a pen," he said, "and was afraid of all the little pigs. They would chase the big pig all over the pen, around and around, and pretty soon it fell with exhaustion, and the little pigs pounced upon the big pig and ate all of the buttons off his vest."

\* \*

REVENGE—The bull gored the car of the veterinarian who was the artificial insemination agent.

\* \*

## LOVE COWS?

It was late dusk; the moon was just showing on the horizon. The farm boy and the girl from town were leaning on the pasture bars watching the calf and its mother rubbing noses.

"Gee!" said the farm boy, "I'd like to be doing that."  
"Go ahead," smiled the girl. "It's your cow."

\* \*

Prosecuting Attorney: "It's my duty to tell you that everything you say will be held against you."

Defendant: "Marilyn Monroe, Marilyn Monroe, Marilyn Monroe . . ."

THIRTY-TWO

A mountaineer of one of the back counties of Kentucky was arranged with several others for illegal distilling.

"Defendant," said the judge, "what is your name?"

"Joshua," replied the man.

"Are you the man who made the Sun stand still?"

Quick as a flash came the answer, "No, sir; I am the man who made the moonshine."

\* \*

A cow-puncher ordered a steak at a restaurant. The waiter brought it in rare—very rare. The cow-puncher looked at it and demanded that it be returned to the kitchen and cooked.

"It's cooked," replied the waiter.

"Cooked—nothing," replied the cow-puncher. "I've seen cows hurt worse than that and get well."

\* \*

A woman may be as old as she looks, but a man is old if he doesn't.

\* \*

A wedding ring is like a tourniquet'. It stops your circulation.

\* \*

There was a little country girl who came to college and always went out with city fellers because farm hands were too rough.

\* \*

"Ever kiss a girl in a quiet spot?"

"Yes, but it was only quiet when I was kissing it."

\* \*

Father—Are they strict at Clemson?

Son—Well, one fellow died in class, and they propped him up until the lecture ended.

\* \*

The student gets the magazine,

The school gets the fame,

The printer gets the money,

The editor gets the blame.

—The Tiger

\* \*

Clemson Cadet: I'm groping for words.

Winthrop girl: I think that you are looking in the wrong place.

—The Tiger

\* \*

He: "What would you say if I stole a kiss?"

She: "What would you say too a guy who had a chance to steal an automobile and only took the windshield wiper?"

—The Tiger

\* \*

He: You look like a million dollars.

She: Yes, and I'm just as hard to make.

—Show Me

\* \*

He: "There's a long tunnel ahead. Are you afraid?"

She: "Not if you take the cigar out of your mouth."

\* \*

King Arthur: "I hear you have been misbehaving."

Knight: "In what manor, sir?"

THE AGRARIAN

THESE **CLEMSON**  
**BOOK**  
**STORE**

**2**\_\_\_\_\_

•

ARE **L. C. MARTIN**  
WORKING **DRUG CO.**  
FOR YOU

*Serving Clemson Students, Clemson People  
and Clemson's Friends and Visitors is Our  
Way of Mixing Pleasure with Business*

"WHERE ALL CLEMSON MEETS"



...*But only Time will Tell* . . . . .



**ONLY TIME WILL TELL** ABOUT A BUDDING SCIENTIST! AND ONLY TIME WILL TELL ABOUT A CIGARETTE! TAKE YOUR TIME...

R. J. Reynolds Tobacco Co., Winston-Salem, N. C.

Test **CAMELS** for 30 days  
for Mildness and Flavor!



● Why is Camel far and away America's most popular cigarette? There's a simple answer: Camels give smokers just what they want—rich, full flavor and cool, cool mildness . . . *pack after pack!* Try Camels yourself! Smoke only Camels for 30 days and see how mild, how flavorful, how enjoyable they are as your steady smoke!

**CAMEL** leads all other brands by billions of cigarettes per year!